ABSTRACT

The Yuma Field Office Proposed Resource Management Plan and Final Environmental Impact Statement (PRMP/FEIS) describes and analyzes five alternatives for managing approximately 1.3 million acres of Bureau of Land Management (BLM)–administered land in southwest Arizona and southeast California. Information provided by the public, other agencies and organizations, and BLM personnel has been used to develop and analyze the alternatives in the PRMP/FEIS. *Alternative A* is the No Action alternative and represents continuation of current management. *Alternative B* generally places an emphasis on appropriate human use and influences and the widest array of uses. *Alternative C* provides visitors with opportunities to experience natural and cultural resource values of the planning area. *Alternative D* generally places emphasis on the preservation of the planning area's natural and cultural resources through limited public use and discontinuation of livestock grazing. *Alternative E,* the Proposed Plan, provides for an optimal balance between authorized resource use and the protection and long-term sustainability of sensitive resources within the planning area. Major issues addressed in the PRMP/FEIS include management of special designations, fish and wildlife management, wild horse and burro management, recreation management, travel management, lands to be managed to maintain wilderness characteristics, and lands and realty.

MISSION STATEMENT

The BLM is responsible for the balanced management of BLM-administered lands and resources and their various values so that they are considered in a combination that will best serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield, a combination of uses that take into account the long-term needs of future generations for renewable and nonrenewable resources. These resources include recreation, range, timber, minerals, watershed, fish and wildlife, wilderness and natural, scenic, scientific, and cultural values.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Yuma Field Office
2555 East Gila Ridge Road
Yuma, AZ 85365
www.blm.gov/az/

In Reply Refer To:
1610 (AZ-320)

Dear Reader:

Enclosed for your review is the Proposed Resource Management Plan (PRMP) and Final Environmental Impact Statement (FEIS) for the Yuma Field Office. The PRMP/FEIS was prepared by the Bureau of Land Management (BLM) in consultation with cooperating agencies, taking into account public comments received during this planning effort. The PRMP provides a framework for the future management direction and appropriate use of the Yuma Field Office, located in Yuma County, Arizona. The document contains both land use planning decisions and implementation decisions to define the BLM's management of the lands administered by the Yuma Field Office.

The PRMP and FEIS have been developed in accordance with the National Environmental Policy Act of 1969 (NEPA), and the Federal Land Policy and Management Act of 1976. The PRMP is largely based on Alternative E, the preferred alternative in the Draft Resource Management Plan/Environmental Impact Statement (DRMP/DEIS), which was released on December 15, 2006. The PRMP/FEIS contains the Proposed Plan, a summary of changes made between the DRMP/DEIS and PRMP/FEIS, predictable impacts of the Proposed Plan, a summary of the written and verbal comments received during the public review period for the Draft RMP/EIS, and responses to the comments.

Pursuant to BLM's Planning regulations at 43 CFR 1610.5-2, any person who participated in the planning process for this PRMP and has an interest which is or may be adversely affected, may protest approval of this PRMP and the land use planning decisions therein within 30 days from date the Environmental Protection Agency publishes the Notice of Availability of the FEIS in the *Federal Register*. Please see the accompanying protest regulations in the pages that follow. E-mailed and faxed protests will not be accepted as valid protests unless the protesting party also provides the original letter by either regular or overnight mail postmarked by the close of the protest period. Under these conditions, the BLM will consider the e-mailed or faxed protest as an advance copy and will afford it full consideration. If you wish to provide the BLM with such advance notification, please direct faxed protests to the attention of Brenda Hudgens-Williams, BLM protest coordinator at 202-452-5112, and e-mailed protests to: Brenda_Hudgens-Williams@blm.gov.

All protests, including the follow-up letter (if e-mailing or faxing) must be in writing and mailed to the following address:

Regular Mail:
Director (210)
Attention: Brenda Hudgens-Williams
P.O. Box 66538
Washington, D.C. 20035

Overnight Mail:
Director (210)
Attention: Brenda Hudgens-Williams
1620 L Street, N.W., Suite 1075
Washington, D.C. 20036

The regulations comprise critical elements of your protest. Take care to document all relevant facts. As much as possible, reference or cite the planning documents or available planning records (e.g. meeting

minutes or summaries, correspondence, etc.) To aid in ensuring the completeness of your protest, a protest check list is attached following this letter. This is also available online at *http//:www.blm.gov/az*.

The BLM Director will make every attempt to promptly render a decision on each protest. The decision will be in writing and will be sent to the protesting party by certified mail, return receipt requested. The decision of the BLM Director shall be the final decision of the Department of the Interior.

Before including your address, phone number, e-mail address, or other personal identifying information in your protest, be advised that your entire protest—including your personal identifying information—may be made publicly available at any time. While you can ask us in your protest to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

Unlike land use planning decisions, implementation decisions are not subject to protest under the BLM planning regulations but are subject to administrative remedies and review, primarily through appeals to the Office of Hearings and Appeals (OHA), Interior Board of Land Appeals pursuant to 43 CFR, Part 4 Subpart E. Implementation decisions generally constitute the BLM's final approval allowing on-the-ground actions to proceed. Where implementation decisions are made as part of the land use planning process, they are still subject to the appeals process or other administrative review as prescribed by specific resource program regulations after the BLM resolves the protests to land use planning decisions and makes a decision to adopt or amend a Resource Management Plan (RMP).

These administrative remedies for final implementation decisions usually take the form of appeals to OHA, though for certain proposed or non-final implementation decisions, such as proposed grazing decisions, the regulations provide for an internal agency review (usually a protest to the Authorized Officer) which must be completed before the final implementation decision can be appealed to the OHA. This type of protest to the Authorized Officer should not be confused with the protest of land use planning decisions to the BLM Director.

Upon resolution of all land use plan protests, the BLM will issue an Approved RMP and Record of Decision (ROD). The Approved RMP and ROD will be mailed or made available electronically to all who participated in the planning process and will be available to all parties through the "Planning" page of the BLM national website (*http://www.blm.gov/planning*), or by mail upon request. The Approved RMP and ROD will include the appeals process for implementing decisions that may be appealed to the Office of Hearing and Appeals following its publication.

Sincerely,

James T. Shoaff
Field Manager

[Code of Federal Regulations]
[Title 43, Volume 2]
[Revised as of October 1, 2002]
From the U.S. Government Printing Office via GPO Access
[CITE: 43 CFR 1610.5-2]
[Page 20]

TITLE 43--PUBLIC LANDS: INTERIOR

CHAPTER II--BUREAU OF LAND MANAGEMENT, DEPARTMENT OF THE INTERIOR

PART 1600--PLANNING, PROGRAMMING, BUDGETING--Table of Contents

Subpart 1610--Resource Management Planning

Sec. 1610.5-2 Protest procedures.

(a) Any person who participated in the planning process and has an interest which is or may be adversely affected by the approval or amendment of a resource management plan may protest such approval or amendment. A protest may raise only those issues which were submitted for the record during the planning process.

(1) The protest shall be in writing and shall be filed with the Director. The protest shall be filed within 30 days of the date the Environmental Protection Agency published the notice of receipt of the final environmental impact statement containing the plan or amendment in the Federal Register. For an amendment not requiring the preparation of an environmental impact statement, the protest shall be filed within 30 days of the publication of the notice of its effective date.

(2) The protest shall contain:
(i) The name, mailing address, telephone number and interest of the person filing the protest;
(ii) A statement of the issue or issues being protested;
iii) A statement of the part or parts of the plan or amendment being protested;
(iv) A copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party or an indication of the date the issue or issues were discussed for the record; and
(v) A concise statement explaining why the State Director's decision is believed to be wrong.

(3) The Director shall promptly render a decision on the protest. The decision shall be in writing and shall set forth the reasons for the decision. The decision shall be sent to the protesting party by certified mail, return receipt requested.

(b) The decision of the Director shall be the final decision of the Department of the Interior.

Resource Management Plan Protest
Critical Item Checklist

The following items *must* be included to constitute a valid protest whether using this optional format, or a narrative letter.
(43 CFR 1610.5-2)

BLM's practice is to make comments, including names and home addresses of respondents, available for public review. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so. All submissions from organizations and businesses, and from individuals identifying themselves as representatives or officials of organizations and businesses, will be available for public inspection in their entirety.

Resource Management Plan (RMP) or Amendment (RMPA) being protested:

Name:
Address:
Phone Number: ( )

Your interest in filing this protest (how will you be adversely affected by the approval or amendment of this plan?):

Issue or issues being protested:

Statement of the part or parts of the plan being protested:

Chapter:
Section:
Page:
(or) Map:

Attach copies of all documents addressing the issue(s) that were submitted during the planning process by the protesting party, <u>OR an indication of the date the issue(s) were discussed for the record</u>.
Date(s):

A concise statement explaining why the State Director's decisions is believed to be wrong:

READER'S GUIDE

HOW TO USE THIS DOCUMENT

This PRMP/FEIS is presented in five chapters and appendices, consistent with Federal requirements that guide the preparation of an EIS.

- **Chapter 1** sets the stage for the PRMP/FEIS by describing the purpose and need for its preparation as well as providing key background information.
- **Chapter 2** describes several potential management approaches, or "alternatives." This document describes five alternative land use plans, including the No Action Alternative and a Proposed Plan.
- **Chapter 3** describes the environment, or resources, that would be affected by the decisions contained in the individual alternatives.
- **Chapter 4** describes the impacts of the potential decisions on these resources.
- **Chapter 5** describes the actions undertaken to provide open and effective participation from members of the public, as well as from organizations, governmental agencies, and consultation with the tribes that all have a stake in the outcome of this process. This chapter also describes the comment analysis process and selected responses to public comments on the Draft RMP/Draft EIS.

The appendices and glossary provide more detailed information, which some readers may find helpful when reading the main text of the document.

Maps of the alternatives are placed in a separate document. In many cases, potential decisions or other discussions contained in this PRMP/FEIS refer directly to maps and figures. In fact, many potential decisions themselves are "map based." The reader must rely on the text, maps, and figures taken together to fully understand the potential decisions described for each alternative.

The Yuma Field Office planning team is willing to meet with groups, individuals, or members of the media to go over the key points in the PRMP/FEIS.

REQUESTS FOR ADDITIONAL INFORMATION

All inquiries should be sent to:

Dave Daniels
Planning and Environmental Coordinator
2555 E. Gila Ridge Road
Yuma, AZ 85365
(928) 317-3200
AZ_YM_RMP@blm.gov

Yuma Field Office
Proposed Resource Management Plan
and
Final Environmental Impact Statement

Prepared by
U.S. Department of the Interior
Bureau of Land Management
Colorado River District
Yuma Field Office
Arizona

April 2008

Recommended by:

James T. Shoaff
Yuma Field Manager

Concurred by:

Rebecca Heick
Colorado River District Manager

Approved by:

Elaine Y. Zielinski
Arizona State Director

EXECUTIVE SUMMARY

INTRODUCTION

The Bureau of Land Management (BLM) has prepared this *Proposed Resource Management Plan and Final Environmental Impact Statement* (PRMP/FEIS) to provide direction for managing public lands administered by the Yuma Field Office (YFO) and to analyze the environmental effects resulting from implementing the alternatives addressed in this document.

The planning area extends northward along the lower Colorado River from the United States–Mexico International Boundary at San Luis, Arizona, to north of Blythe, California, and Ehrenberg, Arizona, including a narrow strip of land in Imperial and Riverside counties, California, and a portion of La Paz County, Arizona. The planning area extends east across Yuma County into western Maricopa County and south to the northern boundary of the Barry M. Goldwater Range. The planning area includes the City of Yuma, the towns of Quartzsite and Wellton, and a number of other smaller communities, and encompasses more than 1.3 million acres of BLM-administered public land, resources, and uses.

The PRMP/FEIS was prepared in compliance with BLM's planning regulations Title 43 Code of *Federal Regulations* (CFR) 1600 under the authority of the Federal Land Policy and Management Act of 1976. This document also meets the requirements of the National Environmental Policy Act of 1969 (NEPA), the *Council on Environmental Quality Regulations for Implementing the NEPA* (40 CFR 1500-1508), and requirements of BLM's NEPA *Handbook* 1790-1.

This document (including the Route Inventory maps described in Chapter 2 under Travel Management) is also available on the Internet at http://www.blm.gov/az/LUP/yuma/yuma_plan.htm and on compact disc.

PURPOSE AND NEED

Currently, the YFO manages resources under portions of three different land use plans: The *Yuma District Resource Management Plan* (1987), as amended; *Lower Gila South Resource Management Plan* (1988), as amended; and *Lower Gila North Management Framework Plan* (1983), as amended. This PRMP/FEIS combines the relevant portions of those documents and updates the plan with issues and concerns identified during the scoping process. The purpose is to provide direction that will guide future land management actions for BLM-administered lands within the planning area. The PRMP/FEIS analyzes alternatives to resolve management issues, determines management objectives and actions, and establishes monitoring methods to facilitate multiple use and sustained yield management for the entire planning area.

PUBLIC SCOPING

The Notice of Intent to prepare the *Draft Resource Management Plan and Draft Environmental Impact Statement* (DRMP/DEIS) was published in the *Federal Register* on March 30, 2004. YFO held four open houses during 2004 and solicited comments using comment forms and informational flyers (distributed by mail and by hand). YFO also invited public participation in the planning process through the use of the BLM website. Prior to the DRMP/DEIS, approximately 860 comments were received from agencies, organizations, the public, and other interested stakeholders. Of the comments received, a large number concerned transportation planning and use of off-highway vehicles (OHV), recreation issues, management of habitat for threatened and endangered species and other wildlife, and management of lands with wilderness characteristics. The remaining comments were divided between other resources as listed in the Table ES-1.

Comments pertaining to transportation planning and OHV use of public lands ranged from requests that there be more OHV access to requests that more controls be placed on OHV use. Many of the comments point to the need to complete the route designation process as soon as practical.

Table ES-1
Comments Received by Topic before the DRMP/DEIS

General Topics	Number of Comments
Riparian/Floodplains/Wetlands	4
Soil, Water, and Air Quality	9
Vegetation Management	25
Fish and Wildlife	77
Threatened and Endangered species, and Special Status Species	36
Cultural/Paleontological/Native American Concerns	33
Fire Management	5
Hazardous Materials/Solid Waste	4
Recreation	131
Visual Resources	35
Land Tenure and Use Authorizations	53
Transportation Planning and OHV	214
Airspace	3
Grazing Use	19
Wilderness Characteristics	71
Special Area Designations	65
Socioeconomics	12
Law Enforcement/Public Safety	29
Border Issues/Undocumented Immigrants	29
Wild Horses and Burros	3
TOTAL	857

Comments on transportation planning and OHV focused on both the need to maintain motorized access and the need to protect natural and cultural resource values from OHV recreation.

Comments pertaining to recreation expressed the desire that BLM continue to provide for camping in Long-Term Visitor Areas (LTVAs) as well as dispersed areas. Other specific comments addressed the importance of wildlife viewing, hunting, and horseback riding. Other comments requested new or improved recreation facilities in specific locations.

Comments relating to habitat for threatened and endangered species and other wildlife included opinions for and against the development of new water sources on public lands. Other comments addressed the importance of habitats for Sonoran pronghorn and flat-tailed horned lizard, expressing concerns regarding fragmentation of habitat, and identifying the need for wildlife corridors.

Comments regarding lands with wilderness characteristics included a public proposal that large acreages be managed to preserve these values. Other comments suggested that no lands outside of designated Wilderness be managed to protect wilderness characteristics.

The balance of the comments addressed a wide range of opinions and concerns, some of which are beyond the scope of YFO's land use planning and this RMP. Most scoping comments, however, are reflected in some fashion in one or more of the PRMP/FEIS alternatives.

To meet BLM's goal "to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations," the PRMP/FEIS focuses on the following topics and the potential decisions needed to influence future actions:

- Land Health Standards
- Special Designations Management
- Coordinated Management Areas
- Vegetation Management
- Wildland Fire Management
- Fish and Wildlife Management
- Special Status Species Management
- Livestock Grazing Management
- Wild Horse and Burro Management
- Recreation Management
- Travel Management
- Visual Resource Management
- Wilderness Characteristics Management
- Cultural Resources Management
- Paleontological Resource Management
- Air, Water, and Soil Management
- Lands and Realty Management
- Mineral Resource Management
- Public Health and Safety Management

GOVERNMENT AND PUBLIC INVOLVEMENT

YFO continued collaboration efforts by including communities in the formulation and development of alternatives. The open house gave citizens the opportunity to provide input for the BLM to consider in refining the issues to be addressed, discuss visions for BLM lands, and begin exploring alternative ways to manage BLM lands and resources. Input received from citizens (both groups and individuals) was considered in developing the alternatives. Citizens could also submit formulated alternatives. These submissions were considered in the range of alternatives and analyzed in the EIS, as required by NEPA. Another series of open houses presented the public with a range of alternatives. The workshops began with a brief overview of the RMP process and the preliminary draft alternatives. Following this presentation, participants

were given the opportunity to circulate to various stations that were facilitated by YFO and contractor staff. This gave the public a firsthand look at how the alternatives are layered with one another and how they vary by alternative. Information about the plan was posted on the YFO website (currently http://www.blm.gov/az/LUP/yuma/yuma_plan.htm) to encourage public participation throughout the planning process.

The PRMP/FEIS was developed with the following Cooperating Agencies: the Arizona Department of Transportation; Arizona Game and Fish Department; Bureau of Reclamation; Cibola, Imperial, and Kofa National Wildlife Refuges; City of Yuma; Cocopah Indian Tribe; Federal Highway Administration; Fort Yuma Quechan Tribe; Marine Corps Air Station, Yuma; Town of Quartzsite; U.S. Army Yuma Proving Ground; U.S. Department of Agriculture Natural Resources Conservation Service; U.S. Department of Homeland Security, Customs and Border Patrol; Yuma County Department of Public Works; Wellton-Mohawk Irrigation and Drainage District; and Yavapai-Apache Nation.

BLM also consulted with Native American tribes who have oral traditions or cultural concerns relating to the planning area, or who are documented as having occupied or used portions of the planning area during historic times. Three Native American tribes (the Cocopah Indian Tribe, Colorado River Indian Tribes, and Fort Yuma Quechan Tribe) currently reside within or adjacent to the boundaries of the planning area. A number of other Native American tribes also have recognized cultural ties to these lands.

ALTERNATIVES

The basic goal of developing alternatives was to prepare different combinations of management to address issues and to resolve conflicts among uses. Alternatives must meet the purpose and need; must be reasonable; must provide a mix of resource protection, use, and development; must be responsive to the issues; and must meet the established planning criteria. Each alternative is a complete land use plan that provides a framework for multiple-use management of the full spectrum of resources, resource uses, and programs present in the planning area.

Two types of land use planning decisions are found under each topic for each alternative: Desired Future Conditions (resource goals and objectives) and Management Actions (prescriptions to help achieve management objectives).

Under all alternatives the YFO will manage the public lands in accordance with all applicable laws, regulations, and BLM policy and guidance, and to meet Land Health Standards. A summary of the key resource management proposals in this PRMP/FEIS are reflected by alternative in Table ES-2.

Table ES-2
Summary of Key Alternative Components

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Land Health Standards				
Arizona's Standards for Rangeland Health and Guidelines for Grazing Administration (1997) would be incorporated into the RMP under all alternatives.				
Special Designations – Wilderness				
Eight congressionally designated Wilderness Areas totaling approximately 167,800 acres would continue to be managed according to the Wilderness Act of 1964 under all alternatives.				
Special Designations – National Historic Trail (NHT)				
Support the establishment of a recreational Juan Bautista de Anza NHT through the planning area under all alternatives. A total of 111 miles of the trail are located within the YFO. Twenty-one miles of the trail are located on BLM-administered lands, and the other 90 miles of the trail would be established and managed through cooperative agreements with other stakeholders.				
Special Designations – National Recreation Trail (NRT)				
0.5 mile designated NRT at Betty's Kitchen.	Extend Betty's Kitchen NRT up to 5.5 miles.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.
Special Designations – National Back Country Byways				
There are no Back Country Byways currently identified.	7 Back Country Byways totaling 220 miles	4 Back Country Byways totaling 76 miles.	0 miles Back Country Byways.	2 Back Country Byways totaling 21 miles.
Special Designations – National Scenic Byways				
There are no Scenic Byways currently identified.	0 miles Scenic Byways	64 miles of Scenic Byway on U.S. Highway 95 between the Town of Quartzsite and Yuma.	Same as Alternative B.	Same as Alternative C.
Special Designations – Areas of Critical Environmental Concern (ACECs)				
8,200 acres designated within 2 ACECs.	8,200 acres designated within 2 ACECs.	44,700 acres designated within 3 ACECs.	626,800 acres designated within 7 ACECs.	Same as Alternative C.

Table ES-2
Summary of Key Alternative Components
(continued)

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Coordinated Management Areas (CMA)				
3,830 acres within 2 CMAs.	8,330 acres designated within 3 CMAs.	Same as Alternative A.	Same as Alternative A.	Same as Alternative B.
Vegetation Management				
12,400 acres managed as a Resource Conservation Area. Vegetation Habitat Management Areas (VHA) were not specially addressed in previous plans. 134,700 acres closed to firewood collection in 2 areas.	0 acres managed as a VHA. 142,800 acres closed to firewood collection in 4 areas.	12,400 acres managed as a VHA in 1 area. 179,300 acres closed to firewood collection in 5 areas.	22,900 acres managed as VHA in 3 areas. All BLM lands in planning area closed to firewood collection.	22,900 acres managed as VHA in 3 areas. 153,000 acres closed to firewood collection.
Vegetation Management – Priority Species				
Continue to manage BLM Priority Species according to BLM Manual 6840.06 C to ensure that actions authorized, funded, or carried out do not contribute to the need for the species to become listed.				
Wildland Fire Management				
Decisions from the Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management (2004) would be carried forward and all wildfires would be fully suppressed.				

Table ES-2
Summary of Key Alternative Components
(continued)

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Fish and Wildlife Management				
539,500 acres designated Priority Wildlife Habitat along Colorado and Gila rivers. Wildlife Habitat Management Areas (WHAs) were not specifically addressed in previous plans.	1,545,800 acres designated between 4 WHAs. (WHA acreages may overlap.)	1,605,200 acres designated between 5 WHAs. (WHA acreages may overlap.)	900,400 acres designated between 4 WHAs. (WHA acreages may overlap.)	1,526,200 acres designated between 5 WHAs. . (WHA acreages may overlap.)
Special Status Species				
The following special status species and their habitats would be managed in accordance with the Endangered Species Act and BLM policy under all alternatives: Federal Listed Species: California brown pelican, Gila topminnow, bonytail chub, desert pupfish, Mojave desert tortoise, razorback sucker, Sonoran pronghorn, southwestern willow flycatcher, and Yuma clapper rail Federal Candidate Species: Yellow-billed cuckoo State Listed Species: Bald eagle, burrowing owl, cactus ferruginous pygmy-owl, flat-tailed horned lizard, Sonoran desert tortoise				
Livestock Grazing				
1,005,600 acres available to livestock grazing in YFO. 215,200 acres available to livestock grazing in Lake Havasu Field Office. 309,500 acres unavailable to livestock grazing in YFO.	680,900 acres available to livestock grazing in YFO. 215,200 acres available to livestock grazing in Lake Havasu Field Office. 637,100 acres unavailable to livestock grazing in YFO.	428,300 acres available to livestock grazing in YFO. 215,200 acres available to livestock grazing in Lake Havasu Field Office. 889,700 acres unavailable to livestock grazing in YFO.	0 acres available to livestock grazing in YFO. 1,533,200 acres unavailable to livestock grazing in YFO and Lake Havasu Field Office.	Same as Alternative C.

Table ES-2
Summary of Key Alternative Components
(continued)

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Wild Horse and Burro Management				
263,700-acre Cibola-Trigo Herd Management Area (HMA). Appropriate Management Level would be 165 burros and 150 horses.	179,000 acres managed as the Cibola-Trigo HMA. Appropriate Management Level same as Alternative A.			
Recreation Management				
Continue management of existing recreation sites: 2 - LTVAs 13 - 14-day Camping Areas 1 - 10-day Camping Area 5 - Day Use Only Sites 2 - Concessions 10 - Boat Launches 11 - Fee Sites Determine if new sites need to be established or existing sites need to be expanded on a case-by-case basis	Same as Alternative A	Same as Alternative A	Continue management of existing recreation sites. New sites would not be established and existing sites would not be expanded.	Same as Alternative A

Table ES-2
Summary of Key Alternative Components
(continued)

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Recreation Management (cont.)				
Recreation Management Areas (RMA) not specifically addressed in previous plans.	Public lands would be allocated to RMAs as follows: 697,100 acres Destination Special Recreation Management Area (SRMA) 587,300 acres Community SRMA 0 acres Undeveloped SRMA 33,600 acres Extensive Recreation Management Area (ERMA)	Public lands would be allocated to RMAs as follows: 494,300 acres Destination 64,900 acres Community 559,300 acres Undeveloped 199,500 acres ERMA	Public lands would be allocated to RMAs as follows: 250,500 acres Destination 35,600 acres Community 642,700 acres Undeveloped 389,200 acres ERMA	Public lands would be allocated to RMAs as follows: 455,700 acres Destination 123,200 acres Community 571,600 acres Undeveloped 167,500 acres ERMA
Recreation Opportunity Spectrum (ROS)/Prescribed Recreation Settings were not specifically addressed in previous plans.	Public lands would be divided into six Prescribed Recreation Settings as follows: Primitive: 167,800 acres Semi-primitive: 147,400 acres Rural Natural: 786,700 acres Rural Developed: 171,800 acres Suburban: 2,500 acres Urban: 8,300 acres	Public lands would be divided into six Prescribed Recreation Settings as follows: Primitive: 167,800 acres Semi-primitive: 135,400 acres Rural Natural: 689,100 acres Rural Developed: 144,900 acres Suburban: 2,500 acres Urban: 8,300 acres	Public lands would be divided into six Prescribed Recreation Settings as follows: Primitive: 167,800 acres Semi-primitive: 436,700 acres Rural Natural: 282,200 acres Rural Developed: 65,600 acres Suburban: 2,500 acres Urban: 8,300 acres	Public lands would be divided into six Prescribed Recreation Settings as follows: Primitive: 167,800 acres Semi-primitive: 154,700 acres Rural Natural: 723,900 acres Rural Developed: 131,700 acres Suburban: 5,700 acres Urban: 4,700 acres

Table ES-2
Summary of Key Alternative Components
(continued)

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Travel Management				
Open OHV Management Area: 400 acres at the Ehernberg Sandbowl. Closed OHV Management Areas: 169,000 acres (167,800 acres of Wilderness; 1,200 acres outside of Wilderness) Limited OHV Management Areas: OHV use limited to existing routes within the remainder of planning area	Open OHV Management Areas: 3,800 acres within 3 areas. Closed OHV Management Areas: 171,000 acres (167,800 acres of Wilderness; 3,200 acres outside of Wilderness) Limited OHV Management Areas: OHV use is limited to 4,600 miles of inventoried routes within the remainder of the planning area.	Open OHV Management Areas: 2,400 acres within 3 areas. Closed OHV Management Areas: 171,300 acres (167,800 acres of Wilderness; 3,500 acres outside of Wilderness) Limited OHV Management Areas: OHV use is limited to 4,600 miles of inventoried routes within the remainder of the planning area.	Open OHV Management Areas: Same as Alternative A Closed OHV Management Areas: 233,800 acres (167,800 acres of Wilderness; 66,000 acres outside of Wilderness) Limited OHV Management Areas: OHV use is limited to 4,600 miles of inventoried routes within the remainder of the planning area.	Open OHV Management Areas: Same as Alternative A Closed OHV Management Areas: 172,900 acres (167,800 acres of Wilderness; 5,100 acres outside of Wilderness) Limited OHV Management Areas: OHV use is limited to 4,600 miles of inventoried routes within the remainder of the planning area.
Visual Resource Management (VRM)				
Designated VRM classes: Class I: 167,800 acres (Wilderness) Class II: 15,200 acres Class III: 1,135,000 acres Class IV: 0 acres	Designated VRM classes: Class I: 167,800 acres (Wilderness) Class II: 541,800 acres Class III: 552,300 acres Class IV: 56,100 acres	Designated VRM classes: Class I: 167,800 acres (Wilderness) Class II: 561,100 acres Class III: 567,500 acres Class IV: 21,600 acres	Designated VRM classes: Class I: 192,400 acres (including Wilderness) Class II: 624,800 acres Class III: 496,400 acres Class IV: 4,400 acres	Designated VRM classes: Class I: 167,800 acres (Wilderness) Class II: 618,600 acres Class III: 512,400 acres Class IV: 19,200 acres
Wilderness Characteristics				
Wilderness characteristics were not specifically addressed in previous plans.	48,400 acres	91,400 acres	301,200 acres	Same as Alternative B.

Table ES-2
Summary of Key Alternative Components
(continued)

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Cultural Resources				
Continue to manage 16 cultural resource sites and areas as Conservation for Future Use. SCRMAs were not specifically addressed in previous plans.	21,200 acres in 4 SCRMAs.	29,900 acres in 11 SCRMAs.	22,200 acres in 8 SCRMAs.	28,500 acres in 10 SCRMAs.
Paleontological Resources				
Paleontological resources were not specifically addressed in previous plans.	Public lands would be allocated to classified as high, moderate, or low sensitivity on the basis of a sensitivity map (to be developed).			
Air, Water, and Soil				
PM_{10} Non-Attainment Areas were not specifically addressed in previous plans.	Management actions would take current PM_{10} Non-Attainment Area into account—appropriate mitigation would be required on a case-by-case basis. Measures to improve water quality would be consistent with Federal and State standards. Floodplains would continue to be managed according to Federal and State guidelines. Management actions would minimize impacts to sensitive soils—appropriate mitigation would be required on a case-by-case basis.			
Lands & Realty				
19,100 acres available for disposal.	46,900 acres available for disposal.	10,500 acres available for disposal.	8,200 acres available for disposal.	11,900 acres available for disposal.
Acquisition: BLM would seek to acquire non-Federal lands from willing sellers, including lands within or adjacent to existing wilderness or existing and proposed ACECs.				

Table ES-2
Summary of Key Alternative Components
(continued)

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Lands & Realty				
174,300 Withdrawal acres. 300 miles within 4 ROW Corridors. 6 Communication Sites	171,400 Withdrawal acres. 500 miles within 10 ROW Corridors. 13 Communication Sites	173,200 Withdrawal acres. Same as Alternative B. 11 Communication Sites	176,100 Withdrawal acres. 400 miles within 5 ROW Corridors. 8 Communication Sites	179,800 Withdrawal acres. 465 miles within 8 ROW Corridors. 10 Communication Sites
Renewable energy was not specifically addressed in previous plans. Under all alternatives, renewable energy would be proposed on a case-by-case basis to meet public demand.				
Minerals Management				
174,300 acres withdrawn from mineral development. Remainder of planning area open to mineral development. No surface occupancy would be allowed in 171,500 acres of 1 ACEC and Wilderness.	171,400 acres withdrawn from mineral development. Remainder of planning area open to mineral development. New mineral material disposal sites would not be authorized within all ACECs. Surface occupancy restrictions would apply throughout 176,000 acres of 2 ACECs and Wilderness.	173,200 acres withdrawn from mineral development. Remainder of planning area open to mineral development. New mineral material disposal sites would not be authorized within all ACECs. Surface occupancy restrictions would apply throughout 212,500 acres of 3 ACECs and Wilderness.	176,100 acres withdrawn from mineral development. Remainder of planning area open to mineral development. New mineral material disposal sites would not be authorized within all ACECs. Surface occupancy restrictions would apply throughout 219,800 acres of 4 ACECs and Wilderness.	179,800 acres withdrawn from mineral development. Remainder of planning area open to mineral development. New mineral material disposal sites would not be authorized within all ACECs. Surface occupancy restrictions would apply throughout 212,500 acres of 3 ACECs and Wilderness.
Locatable Minerals – Public lands outside designated Wilderness and other existing withdrawn areas would continue to be open to entry under the mining laws.				
100 acres managed for Salable Minerals in 1 proposed community pit (currently under NEPA review).	800 acres managed for Salable Minerals in 6 community pits.	400 acres managed for Salable Minerals in 3 community pits.	Same as Alternative A.	700 acres managed for Salable Minerals in 5 community pits.

Table ES-2
Summary of Key Alternative Components
(continued)

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Public Health & Safety				
Public lands would be managed to provide for public health and safety as required to address issues including, but not limited to, unexploded ordnances, mining and milling waste, illegal dumping, undocumented immigration, other border issues, etc.				

Note: Approximate acres were used which reflects the best available data at the time document was prepared.

Alternative A (No Action)

Alternative A (No Action) describes the continuation of the present management of the planning area and provides a baseline from which to identify potential environmental consequences when compared to the Action Alternatives. This alternative describes current resource and land management plan direction as represented in the Yuma District Resource Management Plan (1987), as amended; Lower Gila South Resource Management Plan (1988), as amended; and Lower Gila North Management Framework Plan (1983), as amended. This alternative results in no revision to the existing plans.

Alternative B

Alternative B generally places an emphasis on consumer-driven uses and the widest array of uses, emphasizing recreation, mineral, and energy development. It identifies areas most appropriate for these various uses. It places a greater emphasis on developed and motorized recreation opportunities and less on remote settings and primitive recreation.

Alternative C

Alternative C provides visitors with opportunities to experience natural and cultural resource values of the planning area. It allows visitation and development within the planning area, while ensuring that resource protection is not compromised. It is generally managed with decisions that have a greater balance of multiple uses. Alternative C identifies a combination of natural processes and active management techniques for resource and use management and it provides for both motorized and non-motorized recreation opportunities.

Alternative D

Alternative D generally places emphasis on preservation of the planning area's natural and cultural resources through limited public use and discontinuation of livestock grazing. It focuses on natural processes and other unobtrusive methods for natural resource use and management. It proposes greater opportunities for dispersed non-motorized recreation and fewer motorized and developed recreation opportunities.

Alternative E (Proposed Plan)

Alternative E (Proposed Plan) reflects the best combination of decisions to achieve BLM goals and policies, meets the Interdisciplinary Team (ID Team) purpose and need, addresses the planning issues, and considers the recommendations of cooperating agencies and BLM specialists. The Proposed Plan proposes actions that include, but are not limited to, management of recreation, wildlife, minerals, cultural resources, livestock grazing, and land tenure; designation of Areas of Critical Environmental Concern; access to public lands; and other topics.

PUBLIC REVIEW OF DRMP/DEIS

Notice of the release of the DRMP/DEIS for a 90-day public review period was published in the Federal Register on December 15, 2006. Five formal public meetings were held during the public comment period on the DRMP/DEIS. These meetings were held February 5 through 8, 2007, in

Wellton, Town of Quartzsite, Yuma, and Tucson, Arizona, and in Blythe, California. The meetings provided an opportunity for interested members of the public to learn more about the analysis contained in the DRMP/DEIS, as well as provided an opportunity for attendees to submit comments, written and oral, on the document.

The YFO received more than 430 comment letters (including public comment forms from public meetings, oral testimonies, postal letters, e-mails, and faxes) from individuals, agencies, organizations, and groups during the public comment period on the DRMP/DEIS. Public comment letters resulted in over 1,400 individual comments. Comments received by general topic (percent) are presented in Table ES-3.

Table ES-3
Comments Received by Topic during DRMP/DEIS Public Comment Period

General Topics	Percentage of Comments
Natural Resource Management	37%
Access/Transportation Management	24%
Alternatives and Options	15%
Process	7%
Lands and Realty Actions	6%
Recreation Management	5%
Special Designations	5%
Plan Specific Codes	>1%
Socio and Economic	>1%
TOTAL	100%

All comments received during the public comment period were reviewed and considered. Comments that presented new data or addressed the adequacy of the document, the alternatives, or the analysis are responded to in Chapter 5 of this PRMP/FEIS pursuant to BLM policy. There were also many comments received which requested further clarification in the document. Although not required to be addressed, these comments requesting clarification may have resulted in additional language or revisions throughout the PRMP/FEIS.

ENVIRONMENTAL SETTING

The planning area has hot summers, mild winters, low rainfall, high evaporation rates, and low humidity. Approximately 110 days per year have average temperatures over 100 degrees Fahrenheit; the daily average for July is 107 degrees Fahrenheit. In January, the average daily temperature is 67 degrees Fahrenheit. The average annual precipitation within the planning area is 3.5 inches with rainfall intensities generally low during winter and spring and high during summer and fall. Approximately 60 percent of the precipitation results from winter and spring storms and 40 percent from summer and fall storms. Relative humidity ranges from 4–40 percent in the summer and 25–50 percent during the winter months. Wind speeds in the district average approximately eight miles per hour. Prevailing wind direction is generally from the south during the spring and summer and from the north during the fall and winter.

The topography of the YFO planning area is characterized by rugged mountain ranges, sloping plains, and broad valleys. Slopes range from 1–20 percent on valley floors to sheer bluffs in the mountains. Elevations range from 100 feet above sea level along the United States–Mexico Southerly International Boundary to 3,500 feet atop Eagletail Mountain. Mountain ranges in the planning area include the Big Maria, Chocolate, Dome Rock, Eagletail, Gila, Laguna, Little Horn, Mohawk, Muggins, New Water, Palomas, Tank, and Trigo Mountains. There are three broad desert plains in the planning area: the long and narrow La Posa Plain, extending south from the Buckskin Mountains to the Castle Dome Mountains; the Castle Dome Plain, extending south from the Middle and Castle Dome Mountain ranges; and the Palomas Plain, extending eastward from the Little Horn, Tank, and Palomas Mountains.

The YFO planning area lies entirely within the Lower Colorado sub-basin of the Colorado Hydrologic Region. The Colorado River flows through the entire north–south length of the planning area, and the Gila River traverses the planning area from east to west where it joins the Colorado River. The Bureau of Reclamation regulates water flows on the lower Colorado River through dams, associated reservoirs, and backwater areas at various points along its length. Water quality of the Colorado and Gila rivers are naturally high in total dissolved solids but show little signs of degradation related to domestic, municipal, or industrial wastes.

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ROUTE INVENTORY AND TRAVEL MANAGEMENT AREA MAPS

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CHAPTER 1.0 INTRODUCTION

The Bureau of Land Management (BLM) Yuma Field Office (YFO) is revising the *Resource Management Plan* (RMP) for the YFO planning area (hereafter planning area). The revised RMP will direct management of Federal surface and mineral estate managed by the YFO within Yuma, La Paz, and Maricopa counties in Arizona, and portions of Imperial and Riverside counties in California. The planning area encompasses over 1.3 million acres along the lower Colorado River in southwest Arizona and southeast California, and extends eastward into Maricopa County in Arizona (Map 1-1).

In accordance with BLM's planning regulations at 43 *Code of Federal Regulations* [CFR] Part 1600, and in fulfillment of the BLM's obligations under the National Environmental Policy Act of 1969 (NEPA), the BLM is preparing this *Environmental Impact Statement* (EIS) to analyze the effects of BLM's Proposed Plan and a reasonable range of alternatives. This document has been prepared in accordance with regulations promulgated by the Council on Environmental Quality (CEQ) for implementing procedural provisions of NEPA (40 CFR 1500-1508) and BLM's *NEPA Handbook* (H-1790-1).

The BLM must comply with all Federal requirements and agency policies while developing a reasonable range of alternatives for an analysis of management actions for BLM-administered surface and mineral estate within the planning area. The analysis of resources and values within the planning area would permit the development of recommendations in alternatives for actions that could be taken on BLM-administered lands to enhance management of resources adjacent to and within the planning area.

1.1 PURPOSE AND NEED FOR A RESOURCE MANAGEMENT PLAN REVISION

CEQ regulations (40 CFR 1502.13) require an EIS to "briefly specify the underlying purpose and need to which the agency is responding in proposing alternatives including the Proposed Plan." The Purpose and Need Sections of this EIS provide a context and framework for establishing and evaluating the reasonable range of alternatives described in Chapter 2.

1.1.1 PURPOSE

The purpose of this RMP is to establish management directions for the balanced uses of resources within the planning area, including: rangeland, wildlife, wilderness, recreation, cultural resources, and other natural, scenic, scientific, and historical values. There are three existing RMPs (with amendments) which currently provide for the administration and management of the resources within the planning area. This RMP will consolidate these three plans and will guide the overall management of activities, as well as the use and protection of BLM-administered

resources within the planning area. Subsequent site-specific and more detailed planning will take place for certain geographic areas and resources within the planning area in conformance with this RMP. The RMP will create a framework for future planning and decision making.

The Federal Land Policy and Management Act (FLPMA) of 1976, as amended (43 *United States Code* [U.S.C.] 1711), requires BLM "to develop, maintain, and, when appropriate, revise land use plans" (43 U.S.C. 1712 [a]). FLPMA directs BLM to manage the public lands and their various resource values for multiple use and sustained yield to ensure that they are utilized in a manner that would best meet the present and future needs of the public. As required by FLPMA and current BLM policy, YFO has prepared this RMP to establish management directions for the balanced uses of such renewable and non-renewable resources as rangeland, wildlife, wilderness, recreation, cultural resources, and other natural, scenic, scientific, and historical values within the planning area.

The FLPMA's requirement of the RMP is necessarily broad, since the RMP is a general framework document that will guide the overall management of activities within the planning area as well as the use and protection of BLM-administered resources. As is the case of any RMP, subsequent site-specific and more detailed planning will take place for certain geographic areas and resources within the planning area in conformance with this management plan.

In many cases, existing management decisions that are still effective and valid would be carried forward. In other cases, existing management decisions are outdated and inconsistent. The revised RMP would provide the YFO an opportunity to consolidate three RMPs and several plan amendments. The RMP has been developed in compliance with FLPMA and current BLM Policy as set forth in the 2005 BLM H-1601-1 Land Use Planning Handbook.

The objective of the planning effort is to produce a revised RMP that achieves the following:

- Creates a common vision for the planning area;
- Updates existing management decisions for BLM-administered land within the planning area;
- Addresses new uses of public land that have occurred since the 1986 and 1987 Records of Decision (ROD) for the Yuma District RMP, associated amendments, and management/activity plans were implemented;
- Analyzes and incorporates data related to use of public lands that have become available since the 1987 *Yuma District RMP*, associated amendments, and management/activity plans were implemented;
- Addresses land incorporated into the planning area from the Lower Gila South and Lower Gila North planning areas; and
- Provides forward-looking, cohesive, and consistent land management through collaboration with neighboring communities, general public, interested groups, and all levels of government. Collaborators/partners would be involved in RMP implementation as well as RMP development.

1.1.2 NEED

This RMP is needed to respond to the changed conditions and circumstances which have occurred in the planning area and which may not have been previously addressed under current management, as set forth in the *Yuma District RMP*, as amended (United States Department of the Interior [USDOI BLM] 1987a); the *Lower Gila South RMP*, as amended (USDOI BLM 1988a), and the *Lower Gila North Management Framework Plan*, as amended (USDOI BLM 1983). Those portions of existing management which are responsive to changed conditions and circumstances will be carried forward in the present plan.

A *Land Use Plan* (LUP) Evaluation for the planning area was completed in December 2000. The evaluation concluded that a majority of RMP decisions were either being implemented or had been implemented. Resources within the planning area administered by the BLM are currently managed under three LUPs and their nine amendments.

Additional conditions and changing circumstances which relate to the management of BLM resources within the planning area were considered. These include:

- Population growth and changing demographics;
- Increased and conflicting demands on the planning area's resources and resource uses;
- Increased complexity of resource management issues; and
- Increased off-highway vehicle (OHV) use on public lands.

This Proposed RMP/Final EIS (PRMP/FEIS) comprehensively evaluates these issues to balance resource uses in a way that satisfies both public demand and FLPMA's requirements of multiple-use and sustained yield approach for natural resource management.

1.2 PLANNING AREA

The planning area extends northward along the lower Colorado River from the United States of America (U.S.)–United Mexican States (Mexico) border at San Luis, Arizona, to north of Blythe, California, and Ehrenberg, Arizona. The eastern boundary extends past the eastern side of the Eagletail Mountains Wilderness Area in Maricopa County and south to the northern boundary of the Barry M. Goldwater Range (BMGR). The western boundary generally parallels the Colorado River to the west and includes land in California (see Map 1-1).

The YFO manages a diverse combination of land and resources. The lower Colorado River is a destination for visitors seeking camping, year-round water-related recreation, and off-highway travel. On average, 250,000 winter visitors use the La Posa Long-Term Visitor Area (LTVA) and the five surrounding 14-day campgrounds on an annual basis. Within the planning area there are four Wilderness Areas in Arizona and portions of four other Wilderness Areas in California. The YFO maintains an active lands and realty program to oversee rights-of-way (ROWs) for major corridors connecting energy-rich states such as Texas, Wyoming, and New Mexico to California, through Arizona. The planning area encompasses lands within five counties: three in Arizona (La Paz, Maricopa, and Yuma) and two in California (Imperial and Riverside). RMP-related impacts

are most likely to occur in Yuma and La Paz counties, where approximately 95 percent of the planning area lands are located.

Adjacent land jurisdictions that require management coordination in this RMP include Arizona Game and Fish Department (AGFD), Arizona State Lands, Luke Air Force–BMGR, BLM Field Offices (Lake Havasu, Lower Sonoran, and El Centro), Bureau of Reclamation (Reclamation), California Department of Fish and Game (CDFG), Cibola National Wildlife Refuge (NWR), Cocopah Indian Reservation, Colorado River Indian Tribes, Fort Yuma–Quechan Indian Reservation, Imperial NWR, Kofa NWR, Marine Corps Air Station–Yuma (MCAS–Yuma), U.S. Army Yuma Proving Ground (YPG), and private land including regional irrigation districts.

Where urban interface issues are present, YFO collaborates with cities and towns adjoining public land including the City of Yuma and Town of Quartzsite; Arizona communities of San Luis, Somerton, Dateland, Wellton, Ehrenberg, and Hyder; and California communities of Blythe and Palo Verde, all of which have worked with YFO on various issues.

1.2.1 BUREAU OF RECLAMATION PROJECT LANDS

Several hundred thousand acres of land in the planning area are withdrawn by Reclamation to accommodate Boulder Canyon and related projects from Davis Dam to Mexico. These Reclamation-withdrawn or -acquired lands that constitute a corridor along the lower Colorado River as identified in the Lower Colorado River Land Use Plan of 1964 are jointly managed by Reclamation and BLM for specific purposes as outlined by 613 *Departmental Manual* (DM 613) 1.1 and the joint *Memorandum of Understanding* (MOU) of July 15, 1991.

The Secretary of the Interior has assigned recreation and wildlife management responsibilities on Reclamation-withdrawn lands to the BLM. These activities are conducted in coordination with Reclamation, and the provisions of this arrangement are found in DM 613 1.1. The Secretary of the Interior, acting through Reclamation, retains the role of Watermaster for the lower Colorado River and for operation of the various dams, river works, and irrigation project facilities authorized by Congress.

BLM has the responsibility to maximize opportunities for recreation, wildlife, and other purposes not specified by Reclamation. Reclamation retains the responsibility for operation and maintenance of works and facilities, and environmental mitigation and enhancement associated with its mission of water delivery on the lower Colorado River. Throughout the planning process, YFO has coordinated with Reclamation to ensure that the PRMP/FEIS does not propose planning decisions that would conflict with existing and planned Reclamation project activities. The PRMP/FEIS will take Reclamation projects and plans into account when preparing the ROD for signature.

1.2.2 HISTORICAL OVERVIEW OF PLANNING AREA

The Lower Colorado River Land Use Office (Land Use Office) was established in Yuma by the USDOI in 1961 by Secretarial Order 2854. The Lower Colorado River Land Use Plan was published in 1964 by the DOI for 265 river miles between Davis Dam and the International Boundary. This multi-jurisdictional plan addresses trespass and water-based recreation issues to

resolve illegal occupancy including trailer homes, shacks, commercial resorts, and agricultural development.

In December 1968, the Land Use Office was assigned to the BLM to implement the plan. The Yuma District Office was established on August 23, 1972. The district included Reclamation-withdrawn lands of the Land Use Office along the lower Colorado River corridor and large areas of public land to the east in Arizona. Management issues on public lands included recreation, grazing, mining, wildlife, and realty actions.

In October of 1997, through a reorganization of BLM lands within the State of Arizona, the Yuma District was split into the Yuma and Lake Havasu field offices. The YFO planning area expanded to manage 1.3 million acres, including portions of the Lower Gila North and South planning areas. In 2005, Arizona BLM reorganized to form a three-tiered organization composed of field offices, districts, and the Arizona State Office. The Colorado River District was formed, which includes the Yuma, Lake Havasu, and Kingman field offices. Planning area boundaries remained the same for each field office.

A block of BLM-administered land on U.S. Highway 95 (Highway 95) about 10 miles north of the Town of Quartzsite was transferred to the State Land Trust 30 years ago at the request of the Governor of Arizona and under the direction of the Secretary of the Interior to enable the State Land Department to benefit from future growth in the Colorado River area. The block of land was transferred to the State Land Department after a special study by BLM, the State Land Department, and other Federal and State agencies in 1972. The study determined that this, along with several other blocks of BLM-administered lands along the lower Colorado River in Arizona, should be transferred to State Land Trust's ownership.

1.3 PLANNING PROCESS

1.3.1 STEPS IN THE PROCESS

The BLM uses a multi-step process when developing a LUP. Some of the steps may occur concurrently. Some situations may require the manager to supplement previous work as additional information becomes available. These steps have been fully integrated with the NEPA process and the CEQ guidelines, as depicted in Figure 1-1, and described below.

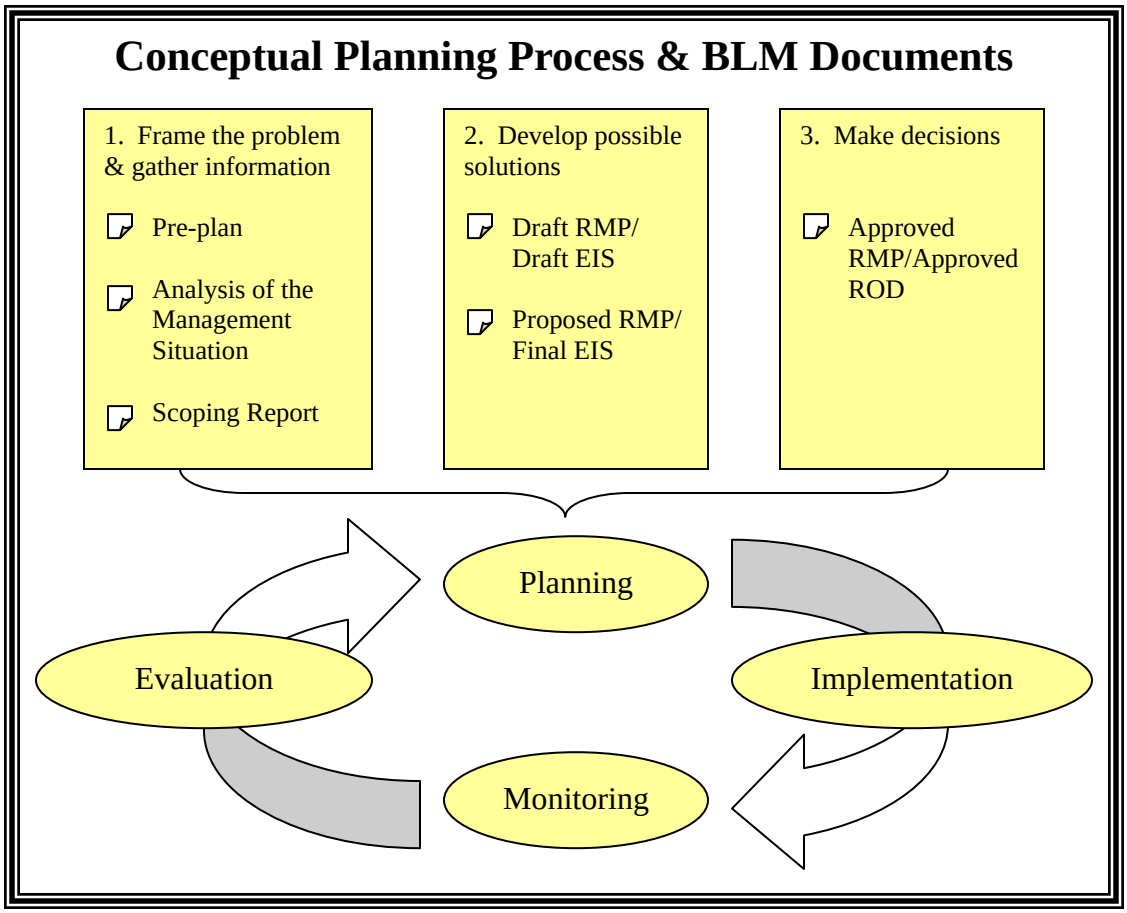

Figure 1-1

A. IDENTIFICATION OF ISSUES

- Issue Notice of Intent (NOI) to begin the scoping process to identify issues and develop planning criteria and to begin public participation.
- Identify issues. This sets the tone and scope for the entire planning process and is done with full public participation.

B. DEVELOP PLANNING CRITERIA

- Establish constraints and guides, and determine what will or will not be done or considered during the planning process.
- Produce a scoping report for public review, including final planning criteria.

C. INVENTORY DATA AND INFORMATION COLLECTION

- Collect an inventory of data and information, which is an ongoing activity and not governed solely by the planning process.

D. ANALYZE THE MANAGEMENT SITUATION

- Gather information on the current management situation. Describe pertinent physical and biological characteristics and evaluate the capability and condition of the resources.

E. FORMULATE ALTERNATIVES

- Alternative formulation is the step where the success of the planning effort hinges on clearly identified reasonable alternatives.

F. ESTIMATE EFFECTS OF ALTERNATIVES

- Estimate the impact or effects of each alternative on the environment and management situation.

G. SELECT PREFERRED ALTERNATIVE

- Select the Preferred Alternative, which in the judgment of management best resolves the planning issues and promotes balanced multiple use objectives.
- Issue a Notice of Availability (NOA) of *Draft RMP/Draft EIS* (DRMP/DEIS) for the 90-day public review.

H. SELECT THE RESOURCE MANAGEMENT PLAN

- Review and analyze public comments, opinions, suggestions, and recommendations and use the important information/data in preparing the PRMP/FEIS.
- Issue a NOA of PRMP/FEIS for the 30-day protest period, concurrent with the 60-day Governor's review.
- Issue a NOA for the *ROD/Approved Plan* after protests are resolved.

I. TIERING TO THE RESOURCE MANAGEMENT PLAN

- Tiering is the incorporation by reference of the content of previous plans into future implementation level project planning. The YFO will tier project-specific NEPA documents to this RMP after the ROD is signed.

- If a proposed project or site-specific action does not conform to or achieve consistency with the terms, conditions, and decisions in the approved RMP, the YFO may deny the proposal or prepare an RMP amendment in the form of an Environmental Assessment (EA) or EIS.

1.3.2 PUBLIC INVOLVEMENT

The RMP provides numerous opportunities for the public to be involved in the process.

- Public scoping meetings are initially held to assist the BLM in assessing the scope of the RMP proposed actions and alternatives to be considered.

- Public meetings are held once the DRMP/DEIS is released to garner public comments on the draft.
- A public protest period is held after the PRMP/FEIS is finished to allow for public input before the decisions are finalized in the ROD/Approved Plan.

Public participation is essential in making informed decisions. BLM believes that extensive public involvement improves communication, develops enhanced understanding of different perspectives, and identifies solutions to issues and problems.

In addition to the public, there are numerous individuals within BLM and other Federal agencies who take an active role in the planning process. A wide variety of individuals both internal and external to BLM participate in the planning process. While most of the work occurs at the Field Office level, many individuals at higher levels of the organization are involved in the planning process as well.

1.4 PLANNING CRITERIA AND LEGISLATIVE CONSTRAINTS

The BLM planning regulations (43 CFR 1610.4-2) require the development of planning criteria to guide preparation of the RMP. Planning criteria are the constraints or ground rules that guide and direct plan preparation. They ensure that the plan is tailored to the identified issues, and that unnecessary data collection and analyses are avoided. Planning criteria are based on applicable laws and regulations, agency guidance, the result of consultation and coordination with the public, other Federal, State, and local agencies, and Native American tribes.

1.4.1 GENERAL PLANNING CRITERIA

The following criteria were developed and distributed to all interested parties collaborating in the planning process.

- The plan would be completed in compliance with FLPMA, the Endangered Species Act (ESA), NEPA, and all other relevant Federal laws and Executive Orders (EOs) (including wilderness legislation) and management policies of the BLM.
- The plan would result in determinations as required by special program- and resource-specific guidance detailed in Appendix C of the BLM's Land Use Planning Handbook (H-1601-1).
- Planning decisions from the existing RMP that remain valid would be carried forward into the plan. Relevant decisions and alternatives proposed in previous studies of the planning area would be brought forward into the plan for reassessment.
- The planning team would work collaboratively with the State of Arizona, Yuma, La Paz, Imperial, Riverside, and Maricopa counties, Tribal governments, municipal governments, other Federal agencies, the Resource Advisory Council, and all other interested groups, agencies, and individuals. Decisions in the plan would strive to be compatible with existing plans and policies of adjacent local, State, Tribal, and Federal agencies, and consistent with

Federal laws and regulations as long as the decisions are in conformance with legal mandates on management of public lands.

- Native American Tribal consultations would be conducted in accordance with policy. Tribal concerns would be given due consideration.
- Coordination would occur with the U.S. Fish and Wildlife Service (USFWS) through the Section 7 consultation process to protect and enhance known habitat for threatened and endangered species and assist in the recovery of listed species to maintain biological diversity within the planning area. Special status species would be reviewed, including species proposed for listing under the ESA, throughout the planning area to conserve habitat through inventory, monitoring, and adoption of conservation measures needed to curtail listing.
- Coordination would occur with the Arizona and California State Historic Preservation Officers (SHPOs) throughout the planning process.
- The plan would recognize the States' responsibilities to manage wildlife populations, including uses such as hunting and fishing, within the planning area.
- The plan would establish new guidance and identify existing guidance upon which the YFO would rely in managing public lands within the planning area.
- The PRMP/FEIS would apply the following existing plans, plan amendments, and their decisions: *Standards for Rangeland Health* (USDOI BLM 1997a) as Land Health Standards applicable to all resources and activities, *Guidelines for Livestock Grazing Management* (USDOI BLM 1997a), and *Proposed Northern and Eastern Colorado Desert Coordinated Management Plan* (USDOI BLM 2002a).
- The PRMP/FEIS would carry forward existing Wilderness Areas; national trails; Back Country Byways; wild and scenic river suitability recommendations; and, as appropriate, existing Areas of Critical Environmental Concern (ACECs).
- Geospatial data would be automated within a Geographic Information System (GIS) to facilitate discussions of the affected environment, alternative formulation, analysis of environmental consequences, and display of results.
- Resource allocations would be reasonable, achievable, supported by technology, and within budgetary constraints. Resource allocations would also be consistent with current BLM policy.
- The lifestyles and concerns of area residents would be recognized in the plan.
- Under the Clean Air Act (CAA), BLM-administered lands were given a Class II air quality classification unless reclassified by the states of California and Arizona. This classification allows moderate deterioration associated with moderate well-controlled industrial and population growth. Actions within the Yuma County PM_{10} non-attainment area would be assessed for conformance with air quality standards.
- The public would be protected from known safety hazards of abandoned mine lands (AML_1) and hazardous materials sites within the planning area. As identified in the draft Instruction Memorandum titled *Mitigating and Remediating Physical Safety Hazards at Abandoned Mine Land Sites*, the YFO would address closure or signage of all AML_1 sites close to Recreation Information Management System sites. Closures and signage would include temporary and remedial measures.
- YFO would incorporate the Discovery Process®, developed by James Kent and Associates,

to detect emerging issues affecting public land by engaging local citizens in the land use planning process.

1.4.2 PROGRAM-SPECIFIC PLANNING CRITERIA

A. RIPARIAN AREAS, FLOODPLAINS, AND WETLANDS

Riparian areas, floodplains, and wetlands would be managed to protect, improve, and restore their natural functions to benefit water storage, groundwater recharge, water quality, and fish and wildlife values. All management practices would be designed to maintain or improve the integrity of these high priority values, in accordance with the Clean Water Act (CWA), EO 11988 (Floodplain Management), and *Arizona's Standards for Rangeland Health*. Additional criteria are found in the *Lower Colorado River Multi-Species Conservation Program* (LCR MSCP), priority wildlife habitat designations, existing activity plans, and the current *Lower Colorado River Fire Management Plan*.

B. WATER QUALITY

Section 319 of the CWA obligates Federal agencies to be consistent with *State Nonpoint Source Management Program Plans* and relevant water quality standards. Section 313 requires compliance with State Water Quality Standards. YFO would coordinate with the Arizona Department of Environmental Quality (ADEQ) regarding their Total Maximum Daily Load (TMDL) program and other relevant water quality programs. YFO would incorporate applicable best management practices (BMPs) or other conservation measures for specific programs and activities into the RMP. Water quality would be maintained or improved in accordance with State and Federal standards.

C. SOIL

Soils would be managed to protect long-term productivity. BMPs would be incorporated into other programs to minimize soil erosion and compaction resulting from management actions.

D. VEGETATION

Vegetation would be managed to achieve desired plant communities (considering the ecological site potential) that provide for: biodiversity; protection and restoration of native species; and non-consumptive uses including plant protection (fuel collection), visual quality, and watershed protection. The desired plant communities would provide wildlife habitat, watershed protection and stability, and forage for livestock and wildlife. Water quality would be given priority in all vegetation management decisions.

There are several treatment methods and standard operating procedures that may be used in a vegetation treatment program. BLM policies and guidance for public land treatments would be followed in implementing all treatment methods. Many guidelines are provided in Manual Section (MS) 1740, BLM *Arizona's Standards for Rangeland Health*, programmatic documents such as BLM's *Environmental Impact Statement for Vegetation Treatments, Watersheds and Wildlife Habitats on Public Lands Administered by the BLM in the Western United States,*

Including Alaska (USDOI BLM 1991), and other general and specific program policies, procedures, and standards pertinent to implementation of renewable resource improvements.

E. FISH AND WILDLIFE

Fish and wildlife habitat would be managed to maintain and/or improve the existing habitats including designated priority wildlife habitat. Management actions should minimize the extent of disturbance to fish and wildlife habitat. Vegetation management practices would be considered to achieve desired future conditions.

F. THREATENED, ENDANGERED, AND SPECIAL STATUS SPECIES

Management actions authorized, funded or implemented by BLM would be implemented not to jeopardize the continued existence of federally listed threatened or endangered plant or animal species or result in the destruction or adverse modification of critical habitat. Candidate species, species proposed for Federal listing, and BLM and State sensitive species would be given equal consideration as listed species. The intent would be to recover listed species and maintain healthy populations of all other species and therefore avoid the need for further Federal listing. As an agency operating within the DOI, the BLM would adhere to the LCR MSCP, approved by Secretary Gale Norton on April 5, 2005.

G. WILDLAND FIRE

Fire management prescriptions would be consistent with the Federal Wildland Fire Policy, the National Fire Plan, and the Lower Colorado River Fire Management Plan. Fire suppression would be accomplished with the least amount of surface disturbance to protect significant cultural or paleontological values. Public lands and resources affected by fire would be rehabilitated in accordance with the multiple use objectives identified for the affected area, subject to BLM policies and available funding.

H. CULTURAL RESOURCES

Management of cultural resources is an integrated system of identifying and evaluating cultural resources, deciding on their appropriate uses, and administering them accordingly, both on public lands and on other lands where BLM decisions could affect cultural resources. All management for cultural resources in this plan would comply with the National Historic Preservation Act (NHPA) of 1966, as amended; BLM *Manual* 8100; and other applicable cultural resource laws, regulations, EOs, guidance, and policy. Areas with high cultural resource sensitivity would be evaluated for the new Special Cultural Resource Management Area (SCRMA) allocation. The plan would ensure that management measures are implemented in a manner that protects and provides access to sacred places in accordance with the American Indian Religious Freedom Act and EO 13007.

I. PALEONTOLOGICAL RESOURCES

This plan would develop appropriate management strategies that are based upon the best scientific information available. Management of paleontological resources would emphasize: the non-renewable nature of fossils; their usefulness in deciphering ancient and modern ecosystems; the public benefits and public expectations arising from their scientific, recreational, and educational values; the BLM's interest in the continued advancement of the science of paleontology; and the importance of minimizing resource use conflicts within a multiple use framework.

J. VISUAL RESOURCES

Visual Resource Management (VRM) classification would be conducted to address the public's concerns about open space and natural vistas. Some areas may be subject to special measures to protect resources or reduce conflicts among uses.

K. WILDERNESS CHARACTERISTICS

The YFO would review lands to be managed to maintain wilderness characteristics. The YFO has the authority to address lands with wilderness characteristics and describe protective management prescriptions in the RMP. In keeping with the public involvement process that is part of all land use planning efforts, the YFO would be committed to considering public input regarding lands to be managed to maintain wilderness characteristics. As appropriate, the YFO would identify lands to be managed to maintain wilderness characteristics.

L. LIVESTOCK GRAZING

Livestock grazing would be managed through existing laws, regulations, and policies. The plans would incorporate the statewide standards and guidelines established by the Arizona BLM State Director and approved by the Secretary of the Interior. They would include a strategy for ensuring that proper grazing practices are followed, while preserving habitats for sensitive plant and wildlife species. Appropriate BMPs would be followed to protect rangeland resources and, where necessary, to mitigate any conflicts with other uses and values. Administrative actions to assure compliance with existing permit/lease requirements, to modify permits and leases, to monitor and supervise grazing use, and to remedy unauthorized grazing use would continue.

M. MINERALS

Minerals management would be consistent with FLPMA and existing policy and regulation including the Mining and Minerals Policy Act of 1970, Section 102(a)(12) of FLPMA, the National Materials and Minerals Policy, Research and Development Act of 1980, and current BLM Mineral Resources Policy. Lands open to salable, leasable, and locatable minerals would be identified in the plan. Areas within the planning area may also be subject to constraints to surface use. Areas proposed to be closed to mineral entry would continue to be subject to valid existing rights for mining claims, leases, and salable permits that currently exist within these areas.

N. RECREATION

Existing designated recreation sites would be carried forward and evaluated for additional facilities. Other public lands would also be evaluated for their suitability for recreational development.

O. TRANSPORTATION

Motorized and other access on the public lands in the planning area would be managed in accordance with existing law, EOs, proclamation, regulation, and policy. OHV use areas would be designated as open, limited, and closed designations. A network of roads and trails would be designated for all limited areas at least five years after the ROD is signed.

P. LANDS AND REALTY

All public lands would be retained in Federal ownership, unless determined that disposal of a particular parcel(s) would serve the public interest. Lands may be identified for withdrawal, disposal by sale, or exchange. Decisions to acquire private lands from willing sellers would be based on public benefits, management considerations, and public access needs. Specific actions to implement RMP land tenure decisions would include full public participation. There would be no net loss of public ownership along the lower Colorado River.

Q. RIGHT-OF-WAY CORRIDORS

Public lands would generally be available for transportation and utility ROWs subject to NEPA evaluation, except where specifically prohibited by law or regulation or in areas specifically identified for avoidance and exclusion to protect significant resource values. ROW Corridors would avoid areas of designation such as priority wildlife habitat, special status species management areas, ACECs, Wilderness Areas, and cultural areas.

R. AREAS OF CRITICAL ENVIRONMENTAL CONCERN

As required by FLPMA, priority shall be given to the designation and protection of ACECs. The RMP would identify and evaluate new ACEC proposals to determine if special management attention is needed to protect and prevent irreparable damage to important historic, cultural, and scenic values; fish or wildlife resources; or other natural systems or processes; or to protect human life and safety from natural hazards. The plan would also re-evaluate the existing Big Marias and Gila River Cultural Area ACECs, to reassess needs for special management attention and re-determine appropriate acreages. Management prescriptions would be developed in the plan to guide management of ACEC proposals and to protect key relevant and important values. The plan may prescribe future ACEC plans or master interpretive plans for designated ACECs if necessary.

S. WILDERNESS AREAS

Wilderness Areas are designated by Congress and are managed according to the Wilderness Act of 1964, the Arizona Desert Wilderness Act of 1990, the California Desert Protection Act of

1994, regulations for wilderness management at 43 CFR 6300, BLM *Manuals* 8560 and 8561, BLM *Handbook* H-8560-1, and *Wilderness Management Plans*. The RMP would not address reducing or eliminating existing Wilderness Areas, changing existing wilderness boundaries, or allowing motor vehicle or other use of mechanical transportation in any Wilderness Areas not already authorized. Also consistent with policy, the YFO would not establish new Wilderness Study Areas (WSAs), manage any lands not already established as WSAs prior to April 2003 under the FLPMA Section 603 non-impairment standard, or report such areas to Congress.

T. HAZARDOUS MATERIALS

Management actions would consider BMPs which protect the public to the greatest extent through existing policies.

U. SOCIOECONOMICS

Management actions would be evaluated for socioeconomic impacts by using the "Economic Profile System" and other tools such as IMPLAN.

V. ENVIRONMENTAL JUSTICE

The lifestyles of low-income and minority populations, and potential impacts to these residents would be considered in the RMP.

X. COORDINATED PLANNING AND MANAGEMENT

YFO would collaborate with adjacent Federal, State, Tribal, city, and county governments.

1.5 PUBLIC SCOPING ISSUES

To allow an early and open process for determining the scope of issues and concerns related to preparation of the DRMP/DEIS (40 CFR 1510.7), a public scoping period was provided by BLM. A NOI to prepare the YFO DRMP/DEIS was published in the *Federal Register* on March 30, 2004 (Volume 69, Number 61, Pages 16608-16609 [AZ 050-04-1610-DO; 1610]). Publication of this notice in the *Federal Register* initiated a 90-day public scoping period for the DRMP/DEIS that ended on June 30, 2004.

YFO contacted Federal, State, county, and local agencies to initiate coordination and collaboration efforts. Agencies received postcards and were invited to comment as part of the initial scoping process and during individual agency meetings with YFO management staff. The YFO mailed informational postcards to approximately 1,200 individuals and organizations announcing its intent to prepare a DRMP/DEIS for BLM-administered public lands in the planning area. Public scoping meetings were held by the YFO in Yuma, Quartzsite, and Roll, Arizona, and Blythe, California on June 1 through 4, 2004. Approximately 150 to 210 persons attended the public scoping meetings. A total of 207 responses identifying 626 issues were received during the comment period. Copies of all project notices and comment forms distributed during the scoping period are contained in the *Final Scoping Report* (USDOI BLM 2004a).

Public comments addressed a variety of issues and concerns regarding resources and resource uses, as well as management considerations. A summary of the most common public comments, issues, and management concerns follows. A listing of the issues, rationale for dismissal, and planning criteria are contained in Appendix 1-A within this document.

1.5.1 ISSUES ADDRESSED IN THIS PRMP/FEIS

The major emphasis and considerations within this PRMP/FEIS which were identified by the public scoping process include:

- Special Designations;
- Fish and Wildlife Management;
- Recreation Management;
- Transportation Management;
- Lands to be Managed to Maintain Wilderness Characteristics; and
- Lands and Realty.

A. SPECIAL DESIGNATIONS

Issues focused on the need to identify and protect new and existing special areas in general and from activities including oil/gas development, mining, OHV, grazing, and road construction in particular. ACEC designation was requested for Sonoran pronghorn and desert tortoise habitat. It was also requested that the river corridor be designated as a natural resource area rather than as a general use area.

Comments were also received in opposition to special designations (specifically Wilderness) stating that these designations benefit only those few who are fit enough to hike into the areas to enjoy them, that there should be no further designations as there is designated Wilderness available in the area, and all currently designated areas should be opened for access.

A considerable number of comments were received concerning Back Country Byway designations. Several commenters stated they would prefer that no Back Country Byways be designated in the planning area, as recreationists would be drawn to these particular areas.

B. FISH AND WILDLIFE

Fish and wildlife issues included habitat fragmentation and impacts from OHV use and development. Impacts to wildlife, specifically ground-nesting birds, and impacts to forage availability and quality from grazing were also mentioned. Several comments were received regarding water catchments, including the desire that these be managed by BLM, concern that there are not enough catchments, and concern that some catchments are sometimes empty and others fenced making them unavailable for use by all wildlife. A few comments emphasized the benefit of agriculture to wildlife for food resources and one commenter expressed concern over policies to control predators and rodents. There were also requests to provide wildlife corridors between this planning area and adjacent areas.

C. RECREATION

Many members of the public used the comment cards to inform the YFO what they felt to be the most important recreation activities on BLM-administered land. These recreation uses included hunting, OHV use, camping, rock hounding, fishing, photography, hiking, wildlife viewing, scientific research, and shooting. Comments received indicated the need to maintain a multiple-use management approach.

Other recreation comments were received regarding the need to maintain camping areas, including the LTVAs. Several comments were received requesting additional equestrian opportunities be provided, expressing a preference both for and against shooting in the area, and requesting trails be designated for specific uses. The need for additional recreational improvements and amenities were specifically mentioned for the Squaw Lake Campground and Day Use Area and the Sandy Cove Campground (Hippy Hole).

Comments also stated there should be no fees for the use of public land.

Education was also mentioned in comments. People felt the resources of the public lands provide important educational opportunities for themselves and future generations. Commenters also emphasized the importance of educating visitors about environmental stewardship of the public lands. Several comments were received about the scientific research and learning opportunities offered by the area, particularly for seed resources and geology.

D. TRAVEL MANAGEMENT

Many public comments were received concerning transportation planning and access. A frequently raised issue was access, with many users commenting that no further restrictions through road closures or Wilderness designation should occur. Another issue was the request for currently closed roads to be reopened. Other issues included: a desire for route designation to manage routes created by the lack of designation and illegal immigrants; the belief that public land should be publicly accessible; and the desire that current access should remain for future generations to enjoy the land. Other comments requested that there be no new roads established.

Issues with OHV use included damage to natural resources, wildlife, cultural resources, and existing roads; lack of designated open, closed, and limited areas; lack of signs and enforcement; and the need to limit OHV to certain or designated areas. Some OHV supporters felt that OHV is the only way to enjoy remote areas, especially for older or disabled users.

E. LANDS TO BE MANAGED TO MAINTAIN WILDERNESS CHARACTERISTICS

The identification of lands to be managed to maintain wilderness characteristics was a frequently mentioned issue. Commenters raised issues concerning the BLM definition of wilderness characteristics and the evaluation process that was used in formulation of the alternatives. Some commenters wanted lands with wilderness characteristics identified, protected, and closed to OHV use and other land disturbing activities. Another public issue was the opposition to

managing for wilderness characteristics and the statement that managing for these resources essentially creates new wilderness in violation of Congressional intent.

F. LANDS AND REALTY

Numerous comments were received regarding land tenure and use authorizations and generally covered one of three categories: (1) general policy regarding disposal or exchange, (2) support for disposal, exchange, or lease of specific areas, and (3) agricultural use. Many commenters expressed concern over future disposals or exchanges. They requested no future disposals or exchanges or only limited ones. Some comments stated that wildlife habitat should be considered during potential land exchanges. Specific areas mentioned for disposal/exchange or leases included Harvey's Fishing Hole, Martinez Lake, area along the Colorado River, and BLM-administered land within the Quartzsite town limits. Several comments were received supporting agricultural use in the area for a variety of reasons and expressing concern over potential termination of agricultural leases.

One response discussed ROW Corridors and expressed a need for future corridors to be identified in the plan, but that there should be no amendments for future corridors. The comment also stated that existing corridors should be used instead of creating new ones.

1.5.2 ISSUES NOT ADDRESSED IN THIS PRMP/FEIS

Throughout the scoping process, issues were raised by the public that were either not within the jurisdiction of BLM or that could be dealt with administratively and would not require a planning decision. A full discussion of these issues is included in the scoping report. Issues not addressed in this PRMP/FEIS are summarized below by topic.

- Airspace—Airspace over public land is managed by other jurisdictions.
- Fish and Wildlife—Wildlife population management is under the authority of AGFD and CDFG.
- Recreation—The use of firearms on developed recreation sites and areas is addressed through 43 CFR 8365.2-5(a). Shooting events would be managed through the Special Recreation Permit (SRP) process. Recreational shooting restrictions would be established as warranted through the development of supplementary rules according to the guidelines set forth in 43 CFR 8365.1-6. Recreation fees are addressed in the YFO Recreation and Visitor Services Business Plan.
- Lands and Realty—Land authorizations in the Martinez Lake area of the lower Colorado River are not within the jurisdiction of BLM.
- Transportation—A travel management plan which would include route designations would be completed within five years of the ROD/Approved Plan.

1.5.3 LAWS AND REGULATIONS

The BLM planning process is governed by FLPMA and the BLM Planning Regulations in 43 CFR Part 1600. LUPs ensure that public land is managed in accordance with the intent of Congress as stated in FLPMA, under the principles of multiple use and sustained yield. As required by FLPMA, public land must be managed in a manner that: protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, would preserve and protect certain public land in their natural condition; that would provide food and habitat for fish, wildlife, and domestic animals; and that would provide for outdoor recreation and human occupancy and use by encouraging collaboration and public participation throughout the planning process. In addition, public land must be managed in a manner that recognizes the nation's need for domestic sources of minerals, food, timber, and fiber from public land. LUPs are the primary mechanism for guiding BLM activities to achieve the mission and goals outlined in the BLM Strategic Plan. BLM's *Land Use Planning Handbook* (H-1601-1) contains program-specific guidance.

In addition to FLPMA, NEPA, and their associated regulations, BLM must comply with the mandate and intent of all Federal laws (and any applicable regulations) and EOs that apply to BLM-administered lands and resources in the planning area. The PRMP/FEIS process is intended to develop LUP decisions that resolve such conflicts and meet the multiple use and sustained yield mandate of FLPMA. Appendix 1-B provides a listing of applicable laws, regulations, and EOs that apply to BLM-administered land and resources in the planning area.

1.6 COLLABORATION AND PARTNERSHIPS

The YFO has utilized a collaborative process to work with all other interested entities and individuals to address common needs and goals within the planning area. The effort involved early identification of the most appropriate, efficient, and productive type of working relationships to achieve meaningful results in land use planning initiatives. The YFO's primary objectives of the proposed collaboration process include providing a comprehensive forum for public involvement to achieve defensible decisions for the RMP. The YFO follows 40 CFR 1501.6 CEQ guidelines on roles of lead and cooperating agencies, as discussed in *A Desk Guide to Cooperating Agency Relationships* (USDOI BLM 2005a). This desk guide identifies BLM's regulations for developing the cooperating agency relationship, where "Cooperating Agencies expect and deserve to be given a significant role in shaping plans and environmental analyses—not merely commenting on them—commensurate with their available time and knowledge" (USDOI BLM 2005a). Several CFR sections are applicable to the BLM/cooperating agency relationship:

- "The Field Manager will prepare criteria to guide development of the resource management plan to ensure…[i]t is tailored to the issues previously identified…. Planning criteria will generally be based upon applicable law, Director and State Director guidance, the results of public participation, and coordination with any cooperating agencies and other Federal agencies, State and local governments, and federally recognized Indian tribes." (43 CFR 1610.4-2);

- "The Field Manager, in collaboration with any cooperating agencies, will arrange for resource, environmental, social, economic, and institutional data and information to be collected, or assembled if already available." (43 CFR 1610.4-3); and
- "At the direction of the Field Manager, in collaboration with any cooperating agencies, BLM will consider all reasonable alternatives and develop several complete alternatives for detailed study. Nonetheless, the decision to designate alternatives for further development and analysis remains the exclusive responsibility of the BLM." (43 CFR 1610.4-5).

Public meetings in March 2005 were held to gain public input for Alternative Development (March 7, Quartzsite; March 8, Yuma; March 9, Wellton; and March 10, Blythe). Public meetings in July 2005 were conducted for Preliminary Alternatives (July 25, Wellton; July 26, Quartzsite and Blythe; July 27, Yuma; and July 28, Tucson). Information gathered by the YFO at these public meetings has been incorporated into this PRMP/FEIS.

Additionally, YFO met individually with local offices of several Yuma area agencies to discuss the DRMP/DEIS and to explain the statewide organizational change that BLM-Arizona is undergoing. The YFO staff distributed DRMP/DEIS materials and conducted presentations when requested. The YFO facilitated discussions with the agencies, which generated issues and concerns that are documented in the *Final Scoping Report* (USDOI BLM 2004a) on file at the YFO. Meetings with area agencies were conducted during June, July, and August 2004.

The YFO continues to coordinate and consult with the Arizona and California SHPOs concerning cultural resources within the planning area.

1.6.1 COOPERATING AGENCIES

Numerous Federal, State, and local agencies and Tribal interests were identified by the YFO at the outset of the RMP/EIS effort, and these entities were contacted in writing to determine their interest in serving as cooperators on this PRMP/FEIS. As a part of initiating multiple planning efforts throughout the state, YFO compiled a list of Federal, State, county, and local agencies and Native American tribes that may have a relevant interest in the planning process. Letters were sent to more than 200 agencies to introduce the various RMP/EIS processes within the State of Arizona, identify the upcoming data gathering efforts, and offer an opportunity to become a cooperating agency in the planning effort. An initial cooperating agency meeting was held at the BLM Arizona State Office on October 30, 2002. The purpose of the meeting was to discuss BLM's planning process, collaborative planning, and the meaning and responsibilities of cooperating agencies. The opportunity for involvement in BLM's planning process without becoming a cooperating agency was also discussed. BLM emphasized the goal was to encourage involvement by all interested parties using whatever methods the parties preferred.

In January of 2005, the YFO held a cooperating agency invitation/information meeting. Cooperating agency meetings for the YFO RMP/EIS were conducted in Yuma on June 8, July 20, September 14, and December 13–14, 2005, and on January 12 and February 22, 2006. The June 8, 2005 cooperating agency meeting included an overview of the BLM cooperating agency status, a review of MOUs, milestones and schedules, and development of issues/alternatives. The July 20, 2005 cooperating agency meeting included discussion of preliminary alternatives. The September 14, 2005 cooperating agency meeting included discussion of alternatives and the

internal BLM development of a Proposed Plan for the YFO DRMP/DEIS. The December 13 and 14, 2005, cooperating agency meeting included discussions on Special Designations (potential ACECs and potential Back Country Byways) and an overview of Chapter 3 of the DRMP/DEIS. On January 12, 2006 YFO met with Reclamation to discuss issues related to agency jurisdictions and the Colorado River. February 22, 2006 was a review and comment session by cooperating agencies of the draft Chapter 2.

The BLM has a national Memorandum of Agreement (MOA) with the USFWS to cooperate on Section 7 Consultation for the ESA. AGFD, Arizona Department of Transportation (ADOT), and the Federal Highway Administration (FHWA) have a statewide MOU with BLM and would use this agreement to work collaboratively with the YFO.

To date, the following entities have signed MOUs to serve as cooperating agencies for the YFO PRMP/FEIS.

A. FEDERAL

- Bureau of Reclamation Yuma Area Office & Lower Colorado Regional Office
- Cibola NWR
- Department of Homeland Security, U.S. Customs and Border Patrol
- Imperial NWR
- Kofa NWR
- MCAS–Yuma
- U.S. Army YPG
- U.S. Department of Agriculture (USDOA), Natural Resources Conservation Service (NRCS)
- U.S. Department of Transportation, FHWA

B. STATE

- ADOT–State
- ADOT–Yuma
- AGFD

C. LOCAL

- City of Yuma
- Town of Quartzsite
- Wellton–Mohawk Irrigation and Drainage District (WMIDD)
- Yuma County Department of Public Works

D. TRIBAL

- Cocopah Indian Tribe
- Fort Yuma Quechan Tribe
- Yavapai–Apache Nation

1.6.2 CONSULTATION WITH NATIVE AMERICAN TRIBES

YFO initiated coordination and consultation with 30 Native American tribes and groups within Arizona, California, Nevada, New Mexico, Utah, and Oklahoma with a letter dated June 17, 2004. In the letter, YFO requested the opportunity to make a presentation on the RMP/EIS planning process at a Tribal council meeting or a community meeting. At this early stage in the planning process YFO staff met with representatives from three tribes: the Fort Yuma Quechan Tribe on August 31, 2004; Hualapai Tribe on August 16, 2005; and Tohono O'odham Nation on July 15, 2004.

Twice during the planning process YFO invited all interested tribes to the YFO office to discuss the plan and to share input on the preliminary alternatives. The first meeting on December 9, 2005, was attended by representatives from the Cocopah Indian Tribe, Colorado River Indian Tribes, Fort Mojave Indian Tribe, Pueblo of Zuni, and Tohono O'odham Nation. The second meeting was on December 12, 2006, and was attended by representatives from the Hualapai Tribe, Yavapai–Prescott Tribe, Chemehuevi Tribe, and Cocopah Indian Tribe.

Once the DRMP/DEIS was distributed for public comment on December 15, 2007, YFO staff telephoned each interested tribe to offer to meet at either their Tribal offices or at a central location. The purpose of these meetings was to provide Tribal representatives with an opportunity to ask questions about the DRMP/DEIS and to provide verbal input on the plan. At each meeting, YFO staff also shared a presentation that illustrated the differences between alternatives. During the public comment period, YFO met with representatives from the following tribes:

- Cocopah Indian Tribe on February 27, 2007;
- Colorado River Indian Tribes on February 20, 2007;
- Fort Mojave Tribe on March 1, 2007;
- Fort Yuma Quechan Tribe on February 12 and March 26, 2007;
- Four Southern Tribes (Ak-Chin Indian Community, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, and Tohono O'odham Nation) on March 16, 2007;
- Hualapai Tribe on March 15, 2007;
- Yavapai-Apache Nation on March 14, 2007; and
- Yavapai-Prescott Indian Tribe on March 14, 2007.

Because several of these meetings occurred around the end of the public comment period, YFO decided to extend the timeframe for comments from the tribes to April 30, 2007. Notification of this extension was sent to each tribe in a letter dated March 22, 2007.

Documentation of all meetings, written correspondence, and other coordination with the tribes throughout this planning effort can be found in the administrative record. All tribes with an interest in the planning area were invited to join the planning process as a cooperating agency. The Cocopah, Fort Yuma Quechan, and Yavapai–Apache tribes have signed cooperating agency MOUs.

1.7 RELATED PLANS

Title II, Section 202 of FLPMA provides guidance for the BLM land use planning process to coordinate planning efforts with Native American tribes, other Federal departments, and agencies of State and local governments. To accomplish this directive, BLM is instructed to keep informed of State, local, and Tribal plans; assure that consideration is given to such plans; and to assist in resolving inconsistencies between such plans and Federal planning. The section goes on to state in Subsection (c)(9) that "Land use plans of the Secretary [of the Interior] under this section shall be consistent with State and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act." The provisions of this section of FLPMA are echoed in Section 1610.3 of BLM Resource Management Planning regulations. In keeping with the provisions of this section, State, local, and Tribal officials were made aware of the planning process through the previously described mailings and meetings. The following is a list of plans reviewed during the YFO PRMP/FEIS planning efforts:

- U.S. Department of the Air Force's *Final Environmental Impact Statement for the Barry M. Goldwater Range Integrated Natural Resource Plan* (2006),
- U.S. Army's YPG *Integrated Natural Resources Management Plan* (1995),
- *City of Yuma General Plan* (2002),
- *Imperial County General Plan* (1993),
- *La Paz County Comprehensive Plan* (2005),
- *Lower Colorado River Multi-Species Conservation Program* (USDOI Reclamation et al. 2004),
- *Maricopa County—Managing for Results Strategic Plan* (2005),
- *Riverside County General Plan* (2003), and
- *Yuma County Plan 2010 Comprehensive Plan* (2006).

1.8 VISION

The vision of the YFO in constructing this PRMP/FEIS is to manage BLM-administered lands comprehensively to accomplish needs for all resource uses, while acting as stewards of the land and its valuable resources. The BLM sustains the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations. YFO has considered the public's needs and stakeholder values in the management programs of resources proposed in this PRMP/FEIS.

CHAPTER 2.0
DESCRIPTION OF ALTERNATIVES

2.1 INTRODUCTION

This EIS evaluates five resource management alternatives identified by the letters A, B, C, D, and E (the Proposed Plan). The No Action (Alternative A) represents the continuation of current management direction. The YFO developed the Action Alternatives B, C, and D with input from the public during scoping, from cooperating agencies, and from YFO resource specialists. Once developed, the YFO analyzed Alternatives A through D to predict their impacts on the environment.

The YFO used the impacts analysis of Alternatives A through D, along with knowledge of specific issues raised throughout the planning process; recommendations from cooperating agencies and YFO resource specialists; consideration of planning criteria; and resolution of resource conflicts to select Alternative E, the Proposed Plan. Each alternative provides a different emphasis for managing public lands and resources within the planning area, and each Action Alternative represents a complete and reasonable LUP that meets the purpose and need described in Chapter 1. This chapter is organized by resource rather than by alternative, so that readers may more easily compare how proposed management under each of the alternatives may affect the resources under YFO's administration.

Following is a brief general description of each of the five alternatives. Detailed management prescriptions are presented under the applicable resource headings.

- **Alternative A (No Action)** describes the continuation of the present management of the planning area and provides a baseline from which to identify potential environmental consequences when compared to the Action Alternatives. This alternative describes current resource and land management plan direction as represented in the *Yuma District Resource Management Plan* 1986 and 1987, as amended (1987 *Yuma District RMP*); *Lower Gila South Resource Management Plan* (1988), as amended; and *Lower Gila North Management Plan* (1983), as amended. This alternative results in no revision to the existing plans.
- **Alternative B** generally places an emphasis on consumer-driven uses and the widest array of uses, emphasizing recreation, mineral, and energy development. It identifies areas most appropriate for these various uses. It places a greater emphasis on developed and motorized recreation opportunities and less on remote settings and primitive recreation.
- **Alternative C** provides visitors with opportunities to experience natural and cultural resource values of the planning area. It allows visitation and development within the planning area, while ensuring that resource protection is not compromised. It is generally managed with decisions that have a greater balance of multiple uses. Alternative C identifies a

combination of natural processes and active management techniques for resource and use management and it provides for both motorized and non-motorized recreation opportunities.

- **Alternative D** generally places emphasis on preservation of the planning area's natural and cultural resources through limited public use and discontinuation of livestock grazing. It focuses on natural processes and other unobtrusive methods for natural resource use and management. It proposes greater opportunities for dispersed non-motorized recreation and fewer motorized and developed recreation opportunities.
- **Alternative E (Proposed Plan)** reflects the best combination of decisions to achieve BLM goals and policies, meet the Interdisciplinary Team purpose and need, address the planning issues, and consider the recommendations of cooperating agencies and YFO specialists. The Proposed Plan proposed actions would include but are not limited to management of recreation, wildlife, minerals, cultural resources, livestock grazing, land tenure, designation of ACECs, access to public lands, and other topics.

Throughout this chapter, information is displayed at a broad overview level which then moves to the specific. The chapter is organized by resource, the presence or abundance of which may vary from location to location within the planning area. Land use plan decisions are presented in this PRMP/FEIS as proposals for each resource by alternative. They would become valid when one alternative is chosen and the ROD is signed.

According to the BLM Land Use Planning Handbook, land use plan decisions are broad-scale decisions which guide future land management actions and subsequent site-specific implementation decisions. Land use plan decisions identify specific areas of public land or mineral resources where certain uses or management actions are allowed, are excluded, or may be restricted in order to achieve a desired future condition or to protect certain resource values. Land use plan decisions fall into two categories: Desired Future Conditions (Goals and Objectives) and Management Actions (Allowable Uses) to achieve outcomes. They are described as follows.

- **Desired Future Conditions (Goals and Objectives)** provide overarching direction for BLM actions in meeting the agency's legal, regulatory, policy, and strategic requirements. Goals and objectives initially were identified during the first workshop and refined through subsequent collaboration with cooperating agencies. Goals are broad statements of desired outcome, but generally are not measurable. Objectives are more specific statements of a desired condition that may include a measurable component. Desired Future Conditions represent land or resource conditions that are expected to result if planning goals and objectives are fully achieved.
- **Management Actions (Allowable Uses)** are anticipated to achieve the desired future conditions. Management Actions identify where land uses are allowed, restricted, or prohibited on all BLM-administered surface lands and Federal mineral estate in the planning area. Alternatives may include specific land use restrictions to meet desired future conditions and may exclude certain land uses to protect resource values. For example, alternatives considered for this PRMP/FEIS revision may open, close, or limit OHV access, allow or prohibit firewood collection, or make certain lands available for livestock grazing. Because

the alternatives identify whether particular land uses are allowed, restricted, or prohibited, Management Actions often include a spatial (e.g., map) component.

For each resource in the chapter, additional guidance is presented in the form of Administrative Actions. At the back of the chapter, BMPs are described by resource for implementation decisions which may take place throughout the life of the plan. Administrative Actions and Implementation Decisions are described as follows.

- **Administrative Actions** are not RMP-level decisions. However, they are day-to-day activities conducted by BLM often required by FLPMA that to be accomplished do not require a NEPA analysis or a decision by a responsible official. Examples of Administrative Actions include mapping, surveying, inventorying, monitoring, collecting needed information such as research and studies, and completing project-specific or implementation-level plans. Administrative Actions are included in this PRMP/FEIS because they guide future programs and budget planning.
- **Implementation Decisions** generally constitute the BLM's final approval allowing on-the-ground actions to proceed. Included at the end of the chapter are BMPs which provide a framework for implementation decisions. These types of decisions require site-specific planning and NEPA analysis. They may be incorporated into implementation plans (activity or project plans) or may exist as stand-alone decisions. At this time YFO has not identified specific implementation-level decisions within this PRMP/FEIS.

2.2 LAND HEALTH STANDARDS

Arizona Standards for Rangeland Health and Guidelines for Grazing Administration (*Standards and Guidelines*) were developed, pursuant to 43 CFR 4180, through a collaborative process involving BLM staff and the Arizona BLM Resource Advisory Council and were approved by the Secretary of the Interior in April of 1997. The Standards and Guidelines have been developed to identify the characteristics of healthy ecosystems on public lands and the management actions that promote them. When approved, the *Standards and Guidelines* became Arizona BLM policy, guiding the planning for and management of BLM-administered lands. Arizona *Standards and Guidelines*, therefore, have been incorporated into this RMP. The following Arizona BLM Standards for Rangeland Health describe the conditions necessary to encourage proper functioning of ecological processes and are adopted as Land Health Standards that are applicable to Arizona BLM program-wide. The Guidelines for Grazing Administration are a series of management practices used to ensure that grazing activities meet the Standards. These Guidelines are incorporated into the RMP in the Livestock Grazing Management, Management Actions/Prescriptions section.

2.2.1 STANDARD 1: UPLAND SITES

Upland soils exhibit infiltration, permeability, and erosion rates that are appropriate to soil type, climate and landform (ecological site).

Criteria for Meeting Standard 1

- Soil conditions support proper functioning of hydrologic, energy, and nutrient cycles. Many factors interact to maintain stable soils and healthy soil conditions, including appropriate amounts of vegetative cover, litter, and soil porosity and organic matter. Under proper functioning conditions, rates of soil loss and infiltration are consistent with the potential of the site.
- Ground cover in the form of plants, litter, or rock is present in pattern, kind, and amount sufficient to prevent accelerated erosion for the ecological site; or ground cover is increasing as determined by monitoring over an established period of time.
- Signs of accelerated erosion, as indicated by the factors below, are minimal or diminishing for the ecological site as determined by monitoring over an established period of time.
  - Ground cover
  - Litter
  - Live vegetation, amount and type (e.g., grass, shrubs, trees)
  - Rock
  - Signs of erosion
  - Flow pattern
  - Gullies
  - Rills
  - Plant pedestaling
- Exceptions and exemptions (where applicable): None.

2.2.2 STANDARD 2: RIPARIAN–WETLAND SITES

Riparian–wetland areas are in properly functioning condition.

Criteria for Meeting Standard 2

- Stream channel morphology and functions are appropriate for proper functioning condition for existing climate, landform, and channel reach characteristics. Riparian–wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high water flows.
- Riparian-wetland functioning condition assessments are based on examination of hydrologic, vegetative, soil and erosion-deposition factors. BLM has developed a standard checklist to address these factors and make functional assessments. Riparian–wetland areas are functioning properly as indicated by the results of the application of the appropriate checklist.

- The checklist for riparian areas is in Technical Reference 1737-9 "Process for Assessing Proper Functioning Condition." The checklist for wetlands is in Technical Reference 1737-11 "Process for Assessing Proper Functioning Condition for Lentic Riparian–Wetland Areas." The checklists include the factors listed below.
  - Gradient
  - Width/depth ratio
  - Channel roughness and sinuosity of stream channel
  - Bank stabilization
  - Reduced erosion
  - Captured sediment
  - Ground water recharge
  - Dissipation of energy by vegetation
- Exceptions and exemptions (where applicable):
  - Dirt tanks, wells, and other water facilities constructed or placed at a location for the purpose of providing water for livestock and/or wildlife and which have not been determined through local planning efforts to provide for riparian or wetland habitat are exempt, and
  - Water impoundments permitted for construction, mining, or other similar activities are exempt.

2.2.3 STANDARD 3: DESIRED RESOURCE CONDITIONS

Productive and diverse upland and riparian–wetland plant communities of native species exist and are maintained.

Criteria for Meeting Standard 3

- Upland and riparian–wetland plant communities meet desired plant community objectives. Plant community objectives are determined with consideration for all multiple uses. Objectives also address native species, and the requirements of the Taylor Grazing Act, FLPMA, ESA, Clean Water Act, and appropriate laws, regulations, and policies.
- Desired plant community objectives would be developed to assure that soil conditions and ecosystem function described in Standards 1 and 2 are met. They detail a site-specific plant community, which when obtained, would assure rangeland health, State water quality standards, and habitat for endangered, threatened, and sensitive species. Thus, desired plant community objectives, as listed below, would be used as indicators of ecosystem function and rangeland health.
  - Composition
  - Structure
  - Distribution
- Exceptions and exemptions (where applicable)
  - Ecological sites or stream reaches on which a change in existing vegetation is physically, biologically, or economically impractical.

2.3 SPECIAL DESIGNATIONS MANAGEMENT

Special designations in BLM land use planning include designated Wilderness, National Historic Trails (NHTs), National Recreation Trails (NRTs), National Byways, and ACECs (Maps 2-1a through 2-1e). The planning area's special designations by alternative are shown below in Table 2-1.

Table 2-1
Special Designations by Alternative

Special Designation	Alternative				
	A	B	C	D	E
	Designated Wilderness (BLM acres)				
Big Maria Mountains (CA)	1,600				
Eagletail Mountains (AZ)	98,600				
Little Picacho (CA)	2,900				
Muggins Mountains (AZ)	7,700				
New Water Mountains (AZ)	24,700				
Palo Verde Mountains (CA)	800				
Riverside Mountains (CA)	1,100				
Trigo Mountains (AZ)	30,400				
Total Acres	167,800				
	National Historic Trail (total miles)				
Juan Bautista de Anza	111	111	111	111	111
	National Recreation Trail (total miles)				
Betty's Kitchen	0.5	5.5	0.5	0.5	0.5
	National Byways (total miles)				
	Back Country Byways				
Agua Caliente	0	11	11	0	11
Brenda	0	21	21	0	0
Clanton Hills	0	52	0	0	0
Gold Nugget	0	34	34	0	0
Plomosa	0	10	10	0	10
Red Cloud	0	53	0	0	0
Red Raven	0	39	0	0	0
Total Miles	0	220	76	0	21
	Scenic Byway				
Highway 95	0	0	64	0	64
	Areas of Critical Environmental Concern (total acres)				
Big Marias	4,500	4,500	4,500	9,200	4,500
Dripping Springs	0	0	11,700	9,800	11,700
Gila River Terraces & Trails	0	0	0	140,400	0
Limitrophe	0	CMA	SCRMA	4,500	CMA
Palomas Plain	0	WHA	WHA	429,900	WHA
Sears Point	3,700	3,700	28,500	28,500	28,500
Walters Camp	0	0	SCRMA	4,500	SCRMA
Total Acres	8,200	8,200	44,700	626,800	44,700

CA = California; AZ = Arizona; ACEC = Area of Critical Environmental Concern; CMA = Coordinated Management Area; SCRMA = Special Cultural Resource Management Area; WHA = Wildlife Habitat Management Area

2.3.1 NATIONAL LANDSCAPE CONSERVATION SYSTEM

In June 2000, the BLM responded to growing concern over the loss of open space by creating the National Landscape Conservation System (NLCS). The NLCS brings into a single system some of the BLM's premier designations. By putting these lands into an organized system, the BLM hopes to increase public awareness of these areas' scientific, cultural, educational, ecological, and other values. Inclusion in the NLCS does not create any new legal protections for these lands, but it does provide field offices with overall guidance and direction for management of the system. Components of the NLCS include National Conservation Areas, National Monuments, Wilderness Areas, WSAs, Wild and Scenic Rivers, and National Historic and Scenic Trails. Wilderness Areas and a NHT are the only components present of the NLCS within the YFO.

A. DESIGNATED WILDERNESS

The BLM, Forest Service, National Park Service (NPS), and USFWS all manage Congressionally Designated Wilderness as a part of the National Wilderness Preservation System. There are 167,800 acres of designated Wilderness in the planning area (alternatives Maps 2-1a through 2-1e). Wilderness is managed according to the Wilderness Act of 1964 (16 U.S.C. 1131-1136, 78 Stat. 890), the Arizona Desert Wilderness Act of 1990, California Desert Protection Act of 1994, regulations for Wilderness management at 43 CFR 6300, BLM *Manuals* 8560 and 8561, BLM *Handbook* H-8560-1, and Wilderness Management Plans. This RMP would not address reducing or eliminating existing designated Wilderness Areas, changing existing Wilderness Area boundaries, or allowing motorized vehicles or other use of mechanical transportation in any Wilderness Areas not already authorized. Only Congress can change the boundaries of designated Wilderness Areas.

YFO manages four Wilderness Areas in Arizona and shares management with the BLM California Desert District on four Wilderness Areas in California. The Little Picacho and Palo Verde Mountains Wilderness Areas are managed with the El Centro Field Office; Big Maria Mountains and Riverside Mountains Wilderness Areas are managed with the Palm Springs/South Coast Field Office.

Management provisions for these areas are:

- BLM would classify all Congressionally Designated Wilderness Areas as VRM Class I;
- Wilderness Areas were withdrawn from mineral entry under the Arizona Desert Wilderness Act of 1990 and California Desert Protection Act of 1994; and
- Under the Wilderness Act of 1964, no motor vehicles, motorized equipment or other form of mechanical transport are permitted in Wilderness Areas.

Guidance for the application of special provisions permitted by the Wilderness Act and subsequent laws would be provided by the following plans:

- Muggins Mountains Wilderness Management Plan;
- Eagletail Mountains Wilderness Management Plan;

- Kofa New Water Mountains Wilderness Management Plan; and
- Trigo Mountains Wilderness Management Plan (in progress).

Desired Future Conditions

- Provide for the long-term protection and preservation of the designated area's wilderness character under the principle of non-degradation. Wilderness Areas' naturalness and untrammeled condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historic value would be managed so that they remain unimpaired.
- Manage uses permitted by the Wilderness Act's special provisions and subsequent laws in a manner that would prevent undue degradation of the area's wilderness character. In managing these uses, emphasis would be placed on maintaining wilderness character.
- Accommodate the traditional or sacred uses that may be identified in the future by Native American tribes who traditionally used the Wilderness Areas.

Management Actions

- Continue management of 167,800 acres of Congressionally Designated Wilderness under all alternatives.
- Delineate base camps and install the appropriate facilities adjacent to Wilderness boundaries to accommodate equestrian use and hunting groups.
- Within the Eagletail Mountains Wilderness, prohibit recreational equestrian use within one quarter mile of Indian Springs to prevent impacts to wildlife habitat and cultural resource values. At equestrian trailheads, promote low-impact hitching methods that the public can use prior to entering the Indian Springs area.
- Limit equestrian use authorized by SRPs to pre-selected trails on a case-by-case basis.

Administrative Actions

- Coordinate with U.S. Customs and Border Protection to consider using horses or other non-invasive means of travel if patrols are needed within Wilderness.
- Complete a *Minimum Requirements Decision Guide* analysis prior to all non-emergency actions within Wilderness.
- Arizona BLM would continue to coordinate with California BLM on the portions of four California Wilderness Areas administered by YFO.

B. NATIONAL HISTORIC TRAIL

The Juan Bautista de Anza National Historic Trail (Anza Trail) extends from Mexico to California for a total length of approximately 1,200 miles in the U.S. (Maps 2-1a through 2-1e). Congress designated this trail through Public Law 101-365 in 1990. The *Final Environmental Impact Statement Comprehensive Management and Use Plan - Juan Bautista de Anza National Historic Trail, Arizona and California* (1996) authorizes the NPS to provide oversight for

coordinated management of the trail. The Anza Trail is currently defined as a one-mile-wide corridor. Approximately 111 miles of the trail corridor are within the planning area and approximately 21 miles of the trail corridor are located on BLM-administered land. Proposed actions would require extensive coordination and partnerships, as these BLM-administered lands are not contiguous within the designated corridor. Establishing an operational trail for recreational use within the designated corridor would remain common to all alternatives. The National Trail System Act of 1992 provides that connecting or side trails may be established and designated as components of a NHT.

Desired Future Conditions

- Accommodate increased recreational use of the trail while providing for resource protection and public education regarding the route's cultural, historical, and natural resource values.
- Provide adjacent communities with convenient opportunities to exercise and improve their physical fitness at the multiple-use recreational Anza Trail.
- Provide recreational trail connectivity along the Anza Trail through the planning area to both the BLM El Centro and Lower Sonoran Field Offices.
- Management activities along Anza Trail would be conducted to assure that no adverse impacts occur to those resources and values identified in the legislation designating the trail.

Management Actions Common to All Alternatives

- Reduce hazardous fuels and non-native invasive species along the Anza Trail.
- Designate portions of the Anza Trail through BLM-administered lands for motorized and non-motorized recreation as appropriate.
- Upon designation of motorized portions of the Anza Trail, use of motor vehicles would be limited to the designated NHT only and would not be allowed to drive 100 feet from the centerline of the route. Motorized use shall remain within the route with reasonable use of the shoulder and immediate roadside for vehicle passage, parking/overnight camping, and emergency stopping.
- Install NHT signs and interpretive materials in conformance with the NPS Anza Trail Management Plan.

Administrative Actions

- Manage the Anza Trail consistently with the NPS Anza Trail Management Plan and in cooperation with the NPS to the extent practicable.
- Work with interested stakeholders to identify the appropriate locations of a recreational Anza Trail and its associated trailheads and campsites.
- Nominate the designated Anza Trail for inclusion in the Arizona State Parks Trail System.
- Work with interested stakeholders to secure legal public access to the Anza Trail and its associated trailheads.

- Support the development of an MOU and/or cooperative agreements with interested stakeholders to develop, manage, maintain, and monitor the Anza Trail and its associated facilities within the YFO.
- Monitor the operational trail to identify and mitigate impacts to sensitive cultural resources at risk along the trail corridor.

2.3.2 NATIONAL RECREATION TRAIL

The existing one-half mile Betty's Kitchen NRT (Maps 2-1a through 2-1e) is managed by YFO. This trail would be carried forward under all alternatives. YFO proposes a trail extension under Alternative B that would head northward approximately five miles toward a point south of the Hidden Shores Recreational Vehicle (RV) Village BLM concession lease. Options to extend the trail would be addressed in cooperation with AGFD when a revision to the *Mittry Lake Wildlife Area Management Plan* is done.

Desired Future Conditions

- Provide universal accessibility on the existing portion of the Betty's Kitchen NRT.
- Ensure that any NRT extension proposed under the alternatives accommodates hiking, bicycling, and equestrian use.

Management Actions

- Develop and construct a 5.0-mile extension under Alternative B.
- Continue management of an existing 0.5-mile trail under Alternatives A, C, D, and the Proposed Plan.
- Install and maintain interpretive signs along the existing and extended NRT, as needed.

Administrative Actions

- Any trail extension would be developed and constructed in accordance with NRT standards in coordination with AGFD and Reclamation as funding and labor become available.
- Continue to provide environmental education and interpretation opportunities related to recreation and wildlife.

2.3.3 NATIONAL BYWAYS

The National Byways program was established by the U.S. Department of Transportation (USDOT)/ FHWA under the Intermodal Surface Transportation Efficiency Act of 1991 and reauthorized under the Transportation Equity Act for the 21st Century in 2003. The BLM Back Country Byway system is a component of the National Byway System. BLM can nominate National Scenic Byways, but the nominations must be submitted and approved by State government before they are eligible for consideration by the Secretary of Transportation. BLM Back Country and Scenic Byway designations are approved by the State Director within the parameters established for the State byway program.

The alternatives identify one proposed National Scenic Byway and one to seven proposed Back Country Byways, which vary by alternative (Maps 2-1a through 2-1e). Coordination would occur with adjacent BLM field offices, and RODs would be coordinated prior to signing.

To be eligible for designation, a road must meet criteria for at least one of six intrinsic qualities which are considered unique, irreplaceable, or distinctly characteristic of an area: scenic, historic, recreational, cultural, archaeological, and/or natural qualities. *The National Scenic Byways Discretionary Grants* program provides funding for byway-related preservation projects annually as part of the FHWA *Discretionary Grants Program*. The planning area currently has no byways as defined by BLM *Handbook* H-8357-1.

The four types of Back Country Byways are described below based on the characteristics of the roads.

- Type I. Roads which can accommodate normal touring cars. These roads are paved or have an all-weather surface and have grades that are negotiable by a normal touring car. These roads are usually narrow, slow speed, secondary roads.
- Type II. Roads which require high-clearance-type vehicles. These roads are usually not paved, but may have some type of surfacing. Grades, curves, and road surface are such that they can be negotiated with a two-wheel drive high-clearance vehicle without undue difficulty.
- Type III. Roads which require four-wheel-drive vehicles or other specialized vehicles such as dirt bikes and OHVs. These roads are usually not surfaced. However, the roads are maintained for safety and resource protection purposes. They have grades, tread surfaces, and other characteristics that require specialized vehicles to negotiate.
- Type IV. Trails that are managed to accommodate dirt bike, mountain bike, snowmobile, or OHV use. They are usually single-track trails.

Further details on prescribed recreation settings and VRM classifications along proposed byways are found in the Recreation and VRM sections of this chapter. Additional details of proposed National Scenic Byway and Back Country Byways are shown in Table 2-2.

Desired Future Conditions

- Byways expose visitors to local recreation opportunities and various multiple-use management programs, and interpret natural, cultural, geological, and scenic features.
- Provide interconnectivity between local communities and a working partnership for regional development of eco- and recreational tourism.
- Provide for public safety by communicating to the public the type of vehicle needed to safely travel on each byway.
- Promote sustainable outdoor ethics along the byways to educate the OHV community on how to reduce potential impacts to natural and cultural resources.

Table 2-2
Proposed National Scenic Byway and Back Country Byways

Name	Outstanding Resources or Destination	Byway Length (total miles)	Type	Alternative				
				A	B	C	D	E
National Scenic Byway								
Highway 95	• Views of Castle Dome, Chocolate, Laguna, and Gila Mountains • Information on the differing missions of BLM, Kofa NWR, and YPG along the route • Connectivity of major winter visitor destinations • Horse and burro viewing	64	Paved road			X		X
National Back Country Byways								
Agua Caliente	• Wildlife habitat • Views of Gila Bend Mountains • Geologic features (lava flows and cinder cones) • Prehistoric and historic sites	11	Type II		X	X		X
Brenda	• Views of New Water Mountains • Wildlife viewing • Geologic features • Unique vegetation	21	Type III		X	X		
Clanton Hills	• Views of Eagletail Mountains • Wildlife viewing • Unique vegetation	52	Type III		X			
Gold Nugget	• Views of New Water Mountains • Connectivity to proposed Plomosa Back Country Byway and proposed Highway 95 Scenic Byway	34	Type III		X	X		
Plomosa	• Adjacent public use cultural site • Views of Plomosa Mountains • Values of and connection to Lake Havasu Field Office Back Country Byway nomination	10	Type I		X	X		X
Red Cloud	• Views of Yuma Wash, Imperial NWR, Trigo Mountains, Cibola NWR, Cibola Lake, Martinez Lake, Fishers Landing • Burro viewing • Historic mining	53	Segment I Highway 95 to Imperial NWR headquarters turn off is Type I; Segment 2 Imperial Refuge to Oxbow is Type III.		X			
Red Raven	• Views of Eagletail Mountains • Wildlife viewing • Unique vegetation	39	Type III		X			

BLM = Bureau of Land Management; NWR = National Wildlife Refuge; YPG = Yuma Proving Ground

- Manage the byways in partnership that would address the public demand for OHV experiences in a sustainable manner.
- Focus OHV travel into corridors that YFO and its byway partners would be capable of managing.
- Maintain the long-term scenic quality on BLM-administered lands within the view shed of the byways through application of the BLM VRM system.
- Byway plans would strive to minimize impacts to wildlife and would provide appropriate wildlife viewing opportunities.

Management Actions

- Designate the 11-mile Agua Caliente, 21-mile Brenda, 52-mile Clanton Hills, 34-mile Gold Nugget, 10-mile Plomosa, 53-mile Red Cloud, and 39-mile Red Raven Back Country Byways under Alternative B.
- Designate the 64-mile Highway 95 Scenic Byway, the 11-mile Agua Caliente, 21-mile Brenda, 34-mile Gold Nugget, and 10-mile Plomosa Back Country Byways under Alternative C.
- Designate the 64-mile Highway 95 Scenic Byway, the 10-mile Plomosa Back Country Byway, and the 11-mile Agua Caliente Back Country Byway under the Proposed Plan.
- Upon completion of the nomination process and final approval, a management plan would be developed for each Back Country Byway with cooperating partners. Ensure that the following issues are addressed in the byway management plans:

    - Prevent habitat fragmentation by maintaining Type III and IV byway segments within their existing classification and do not upgrade them by means of widening, grading, paving, or surfacing;
    - Install speed limit, directional, vehicle safety, and interpretive signs to enhance public use, enjoyment, and stewardship of byways;
    - Install byway facilities outside of allocated Wildlife Habitat Management Areas (WHAs);
    - Manage for compatibility between minerals and energy development including ROWs, leases, and permits and other resource uses;
    - Coordinate with byway partners to ensure legal public access to and along proposed routes;
    - Maintain road conditions in a manner to protect and maintain air quality;
    - Restore recreational surface disturbances adjacent to byways to deter route proliferation;
    - Coordinate with the AGFD to implement temporary byway closures within WHAs through adaptive management in order to reduce the potential impacts to sensitive wildlife species;
    - If high visitor use is adversely impacting wildlife or other resources, byway use may be limited through issuing permits or other means; and
    - Identification of cultural resources that might be affected by byways would be conducted in compliance with Section 106 of the NHPA and the guidelines specified in BLM AZ

IM-2006-043, Section 106 Compliance for Designating Off-Highway Vehicle Routes and Areas in Land Use Plans.

Administrative Actions

- Prior to the Back Country Byway nomination process, complete locale-specific visitor use and potential resource impact studies to determine if byway designation is appropriate.
- Follow the nomination and designation process outlined within BLM H-8357-1-Byways by partnering with interested agencies and organizations.
- Manage byways for compatibility with the prescribed recreation settings, mining, and other resource uses.
- Develop maps and brochures of the byways.
- Continuously coordinate with the AGFD to develop limits of acceptable change for resources and road conditions within byway corridors. Monitor for increases in byway width, sensitive cultural resources, and threatened, endangered, and sensitive species habitat, and negative effects to wildlife populations adjacent to byway corridors. If impacts exceed limits of acceptable change, Management Actions would be implemented to reduce resource impacts accordingly. This could include reducing or eliminating use of the byway, until a historic treatment plan is developed and implemented.
- For the Plomosa and Agua Caliente proposed byways, Lake Havasu and Lower Sonoran Field Offices would lead nomination, implementation, management, and partnerships.

2.3.4 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

YFO is evaluating five proposed ACECs and the expansion of two existing ACECs under various alternatives in this PRMP/FEIS (Maps 2-1a through 2-1e). The guidance for ACEC management is included in FLPMA and states that Federal agencies are directed to protect and conserve ecosystems in need of "special management attention" by designating them as "areas of critical environmental concern" in their land use planning process (FLPMA 43 U.S.C. § 1702 [a]). ACECs must meet the relevance and importance criteria in 43 CFR 1610.7-2(b) and must require special management (43 CFR 1601.0-5[a]) to:

- Protect the area and prevent irreparable damage to resources or natural systems, or
- Protect life and promote safety in areas where natural hazards exist.

Areas qualifying for consideration as ACECs must have substantial significance and value including qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern. The values for which ACECs are designated are considered the highest and best use for those lands, and protection of those values would take precedence over multiple uses. An ACEC Evaluation Report can be found in Appendix 2-A which clarifies special management attention needed for each area proposed as an ACEC under the Proposed Plan. Appendix 2-A also describes other management prescriptions which would provide adequate resource protection for areas not proposed as ACECs in the Proposed Plan.

Desired Future Conditions Common to All ACECs

- Provide protection for special status species, wildlife, scenic, riparian, and significant cultural resource values. Maintain the viewsheds and landscape character of ACECs to the extent practicable through the BLM's VRM system.
- Vegetation diversity would be maintained in accordance with ecological site description guides (USDOA NRCS 2005).
- Manage OHV access in a manner which does not damage important cultural resources and wildlife habitat.

Management Actions Common to All ACECs

- New land use authorizations would be discouraged within ACECs and only authorized when it is necessary for resource protection and/or when no reasonable alternative exists.
- Protection of resource values would take precedence over leasable/locatable materials. If an area is not withdrawn from mineral entry, special mitigation would be required to avoid impacts to resources. All locatable mineral actions would require an approved Mining Plan of Operations in accordance with BLM Manual 3809 regulations. Leasable mineral exploration and development would be evaluated on a case-by-case basis.
- New mineral material disposal (salable mineral) sites would not be authorized. Existing material sites would be evaluated and closed, if found to be impacting significant resources.
- Treatment for hazardous fuels reduction and non-native invasive species would be allowed. These treatments would be carried out in a manner that avoids or minimizes impacts to important resources.
- Grazing for commercial purposes would not be allowed within designated ACECs.
- Prohibit new routes within the proposed ACECs except as needed to manage and interpret resources or as required by law, such as access to valid mining claims or private property.
- OHV travel would be limited to existing inventoried routes, until future route evaluation and designation is complete within the ACEC. Upon designation of motorized routes within ACECs, use of motor vehicles would be limited to the designated routes only and would not be allowed to drive 100 feet from the centerline of the route. Motorized use shall remain within the route with reasonable use of the shoulder and immediate roadside for vehicle passage, parking/overnight camping, and emergency stopping.
- Limit equestrian use to existing inventoried routes within ACECs until the route designation process is complete. If determined necessary, designate equestrian trails and install equestrian trailhead facilities to reduce user and resource conflicts. Limit equestrian use to these trails once they have been designated.
- Install interpretation to increase public awareness of resource sensitivity, promote public stewardship, and reduce inadvertent damage to important resources.
- Implement protection measures to stop, limit, or repair damage to cultural resource sites. A variety of protection measures described in BLM *Manual* 8140 may be used to protect the integrity of sites at risk, such as signs, fencing or barriers, trash removal, target shooting

closures, erosion control, backfilling, repairing, shoring up, or stabilizing structures, restricting uses, access, and closures.

- Establish *Supplementary Rules* to enforce any restrictions within ACECs according to the guidelines set forth in 43 CFR 8365.1-6.

Administrative Actions Common to All ACECs

- Work collaboratively with stakeholders for coordinated management purposes.
- Provide opportunities for participation in interpretation by Native Americans and other interested entities.
- Issue SRPs for public use of the ACEC on a case-by-case basis, when it is determined that adverse impacts can be avoided.
- The YFO would retain the ACEC in public ownership and seek to acquire non-Federal lands and interests in lands within the ACECs from willing sellers by purchase, exchange, or donation. Acquisitions would include surface and subsurface rights, and water rights whenever possible. Future acquisitions of inholdings and edgeholdings would be managed in accordance with the designated ACEC.
- Horseback riders would be encouraged to use weed-free hay and use feed buckets. (Refer to Management Actions in the Section 2.5.5 Vegetation Management, Invasive Species).
- Inventory, document, monitor, and protect cultural resources of importance and relevant features prior to developing interpretation programs in order to preserve the future integrity of the site prior to public use.
- Monitor resources within the ACECs to detect change and prevent future deterioration.
- Ensure that commercial tour operators provide appropriate educational information on archaeological site etiquette and resource conservation to their customers. Tour operators would be required to report any vandalism or damage to sites.
- Monitor and maintain designated recreational trails to reduce trail use, proliferation, and damage to resources within ACECs.

A. BIG MARIAS ACEC

The Big Marias ACEC, located about 12 miles north of Blythe, California, was designated in the 1987 *Yuma District RMP* (Map 2-1e-1). The relevance and importance for this ACEC includes a high concentration of nationally significant intaglio features; a density of other archaeological features including petroglyphs, pictographs, trail networks, campsites, and artifact scatters; the National Register of Historic Places (NRHP)-listed Blythe Intaglios site; and the presence of sensitive plant species.

Desired Future Conditions

- Promote the Blythe Intaglios Complex as a heritage tourism destination to enhance public understanding and appreciation.

- Improve interpretation design and protection measures at the Blythe Intaglios Complex in coordination with interested partners.
- Protect and conserve the important cultural resource sites contained within the ACEC, including the many rare intaglio features that are situated on the desert pavement covered terraces above the Colorado River.

Management Actions

- Under Alternatives A, B, C, and the Proposed Plan, continue management of the existing 4,500 acres of the Big Marias ACEC.
- Under Alternative D, expand the existing 4,500-acre Big Marias ACEC to encompass 9,200 acres.
- Close the ACEC to all vegetative product sales.
- In the event that Reclamation relinquishes their second form withdrawal in the Big Marias ACEC, YFO would propose to withdraw 2,900 acres of the ACEC from mineral entry under Alternatives A, D, and the Proposed Plan. The withdrawal would be subject to all existing rights.
- Allow no leasable mineral development surface occupancy within the ACEC to protect cultural resources.
- Allow construction, maintenance, and improvement of existing or new hiking trails, barriers, and signs as necessary.
- Limit parking within the Blythe Intaglios Complex to designated areas.
- Install and maintain interpretive materials at main points of access and interest within 2,900 acres of the ACEC (see Map 2-1e-1). Interpretive locations include but are not limited to parking areas, hiking trails, and cultural resource sites.
- Limit 2,900 acres of the Big Marias ACEC to day-use only (see Map 2-1e-1).
- Restrict any additional communications facilities to the currently authorized Big Maria Communications Site boundaries.
- Restrict utilities, to the extent practical, to the Highway 95 corridor.
- Require visitors to stay on the designated interpretive hiking trails inside the Blythe Intaglio Complex.
- Prohibit collection of dead, downed, and detached firewood and vegetative materials within 2,900 acres of the ACEC (see Map 2-1e-1).

Administrative Actions

- Develop an interpretive plan for the Blythe Intaglios Complex in coordination with interested partners.
- Develop a Cultural Resource Management Plan for the ACEC that addresses appropriate monitoring and protection measures for each known intaglio feature.

- Coordinate any modifications or amendments to designated routes with the California Desert District.
- Consider constructing platforms for visitors to view fenced intaglio areas that are allocated to public use.
- Authorize no new routes within the ACEC, unless they are the only feasible access to private land.

B. DRIPPING SPRINGS ACEC

The relevance and importance of the Dripping Springs ACEC includes a perennial water source, desert bighorn sheep habitat, an important petroglyph site, and the remains of several historic stone structures (Map 2-1e-2). A 640-acre area around the spring is proposed as a core area for management purposes described below.

Desired Future Conditions

- Balance public use and interpretation of the proposed ACEC with the conservation of the many relevant and important resource values of the area.

Management Actions

- Designate the 11,700-acre Dripping Springs ACEC under Alternative C and the Proposed Plan.
- Designate the 9,800-acre Dripping Springs ACEC under Alternative D.
- Under Alternatives C, D, and the Proposed Plan, withdraw the 640-acre core area (rounded to 600 acres) from mineral entry (see Map 2-1e-2). The proposed withdrawal would not affect valid existing mining claims.
- Designate a Closed OHV Management Area within 440 acres of the core area.
- Limit 440 acres of the core area to day-use only.
- Except for prior existing rights, surface occupancy for discretionary actions, including but not limited to oil and gas leases, mineral material disposals, and ROWs, would not be authorized inside the 640-acre core area. Surface occupancy for discretionary actions within the ACEC but outside of the core area would be avoided to the extent practicable. Installation of facilities to protect, interpret, or manage ACEC resource values would be allowed within the entire ACEC, including the core area.
- Prohibit new routes within the proposed ACEC, except as needed to manage and interpret resources or as required by law, such as for access to valid existing mining claims or private property.
- Establish a parking area at both the north and south sides of the proposed ACEC. Install post-and-cable or other barriers as needed to manage access.
- Install and maintain interpretive materials at main points of access and interest. Interpretive locations include, but are not limited to, parking areas, hiking trails, the spring, historic structures, and petroglyph concentrations.

- Close the proposed ACEC to all vegetative product sales.
- Close the proposed 640-acre core area around the spring to public use during extreme or severe drought conditions to protect desert bighorn sheep populations, as recommended by AGFD.
- Prohibit wood collection inside the proposed ACEC boundaries.
- Construct, maintain, and improve designated hiking trails as necessary.
- Develop an interpretive hiking trail in the vicinity of the spring. Require visitors to stay on this trail when visiting the area surrounding the spring.

Administrative Actions

- Create a detailed map of the interpretive area that shows locations of interpretive and informational signage, protection measures, and the interpretive hiking trail in relation to the natural and cultural resource features.
- Develop an interpretive plan for the area around the spring in coordination with interested partners.
- Discourage new routes within the proposed ACEC, except as needed to manage and interpret resources or as required by law, such as access to valid existing mining claims or private property.

C. GILA RIVER TERRACES AND TRAILS ACEC

The proposed Gila River Terraces and Trails ACEC includes public lands along the Gila River which were the location of the Gila Trail, Butterfield Overland Stage Route, Anza Trail, Southern Overland Trail, and Mormon Battalion Trail. The proposed ACEC would also encompass the Sears Point ACEC, Fred J. Weiler Greenbelt Vegetation Habitat Management Area (VHA), and upland river terraces which contain prolific cultural resources. This area would adjoin with the proposed Gila River Terraces and Southern Trail Cultural Resource ACEC within the BLM Lower Sonoran Field Office (Phoenix District) DRMP/DEIS.

Desired Future Conditions

- Maintain properly functioning riparian areas that provide habitat for neotropical and game birds, and other wildlife.
- Ensure that significant cultural resources are available for appropriate uses by present and future generations.
- Ensure historic trail corridors are accessible for cultural and historical interpretation and visitation.
- Restore or rehabilitate riparian habitat along the Gila River to meet habitat requirements for breeding and migratory birds.

Management Actions

- Designate the 140,400-acre Gila River Terraces and Trails ACEC under Alternative D.
- Sign trails according to NPS standards, in a manner consistent with the Anza Trail NPS Management Plan.
- Implement Management Actions for Anza Trail as outlined in Section 2.3.2

Administrative Actions

- Work with stakeholders to write a management plan for the ACEC.

D. LIMITROPHE ACEC

The Limitrophe ACEC name refers to the Limitrophe Division of the lower Colorado River, which is a riverine corridor extending from the Northerly International Boundary (1.1 miles north of Morelos Dam) downriver to the Southerly International Boundary with Mexico at San Luis, Arizona. The Limitrophe area forms the International Boundary, both sides of which contain significant natural resource values, traditional values for local Native Americans, and conditions that warrant highlighting in order to satisfy concerns about safety and public welfare. The Limitrophe was analyzed as a Coordinated Management Area (CMA) under Alternative B and the Proposed Plan for 4,500 acres, and a SCRMA under Alternative C for 4,500 acres. The relevance and importance of this ACEC includes neotropical migratory bird habitat, endangered species habitat, riparian values, traditional use values, proximity to the International Border, hunting and fishing opportunities, and public health and safety concerns.

The area is a focal point of several U.S. agencies. For example, the United States section, International Boundary and Water Commission (USIBWC) is proposing to physically mark the boundary, may possibly develop a pilot channel, and is responsible for treaty agreements with Mexico. Reclamation is responsible for the Colorado River water delivery and maintenance of some of the structures, such as canals, in the proposed ACEC. A recently signed MOU among U.S. Departments of Homeland Security, USDOI, and USDOA regarding cooperation on Federal lands along the U.S. borders explains some of the interrelationships between these agencies operating along the border (USDOI BLM 2006a).

Desired Future Conditions

- Balance public health and safety issues (resulting from illegal immigration, diversionary fires and litter, and general criminal activity) with resource protection and appropriate recreation opportunities, while considering diverse agency constraints.
- Protect and maintain riparian habitat and marsh vegetation to retain biological diversity and enhance potential habitat to support neotropical migratory birds, special status species, and other wildlife.
- Protect and maintain the characteristics of the Limitrophe area that have been identified by Native American tribes as important for traditional use.

- Provide for use of and access to sacred sites and other places of traditional cultural importance by Native American tribes, when such places are identified through government-to-government consultation.

Management Actions

- Designate the Limitrophe ACEC under Alternative D for a total 4,500 acres.
- Prepare an ACEC management plan in cooperation with stakeholders upon designation.
- Allow no surface occupancy for leasable minerals.
- BLM would retain jurisdictional authority for the management of BLM-administered lands.

Administrative Actions

- Work collaboratively with interested stakeholders for coordinated management purposes.
- Remove litter and illegal dumping as funding and personnel allow.

E. PALOMAS PLAIN ACEC

The proposed Palomas Plain ACEC is considered to be the largest contiguous area of public land within the planning area and would be designated for its extensive natural resource values. The BLM Lower Sonoran Field Office (Phoenix District) proposed an adjacent 265,400-acre area as the Gila Bend Mountains WHA. The Palomas Plain ACEC was analyzed as a WHA under Alternatives B and C (704,800 acres), and the Proposed Plan (627,700 acres). The relevance and importance of this ACEC includes unfragmented wildlife habitat, big game, plant community values, and Sonoran Desert tortoise habitat.

Desired Future Conditions

- Maintain a balance between the undeveloped nature and character of land, while providing for undeveloped recreational opportunities and wildlife management actions.

Management Actions

- Under Alternative D, designate the 429,900-acre Palomas Plain ACEC.
- Maintain and enhance suitable habitat for the potential reintroduction of the endangered Sonoran pronghorn (*Antilocapra americana sonoriensis*) in coordination with AGFD.
- Require vehicles to stay on existing inventoried routes until designated or within existing camping areas and pull-outs. Close or limit motorized routes, if necessary, to maintain suitable habitat and reduce habitat fragmentation.

F. SEARS POINT (GILA RIVER CULTURAL AREA) ACEC

The approved RMP would supersede the plan previously written for the Gila River Cultural Area in 1990 when it was located in the BLM Lower Gila South Planning Area (Phoenix District). The relevance and importance of the Sears Point ACEC includes an NRHP-listed archaeological

district with extensive petroglyph displays, prominent basalt mesas, historic trail corridors, and important riparian vegetation including a mesquite bosque and the Fred J. Weiler Greenbelt (Map 2-1e-3).

Desired Future Conditions

- Reduce visitor impacts to Sears Point by enhancing public understanding and appreciation of the cultural resources in the ACEC.
- Manage the Anza Trail corridor inside the ACEC for public use while providing protection and preservation for cultural and natural resources.
- Provide reliable and safe legal administrative access to the ACEC from Interstate 8.

Management Actions

- Under Alternatives C, D, and the Proposed Plan, the ACEC would be expanded to encompass 28,500 acres (Map 2-1e-3).
- An ACEC plan would be written in coordination with interested partners. The plan would provide additional management prescriptions for cultural resources protection and proactive management of public visitation. Until the plan is written, the ACEC would be managed according to the Management Actions listed below.
    - Designate hiking and equestrian trails and OHV routes within the ACEC to control access to the ACEC and prevent damage to cultural resources.
    - Maintain and improve designated hiking trails as necessary.
    - Establish a parking area and install post-and-cable or other barriers as needed to manage access. Determine an appropriate location for the parking area in coordination with stakeholders and Native American tribes.
    - Install interpretive exhibit panels at the central mesas that have been allocated to public use.
    - Install and maintain interpretive materials at main points of access and interest.
    - Provide facilities for public health and safety as needed.
    - Establish a visitor host location under Alternatives C, D, and the Proposed Plan to monitor sensitive resources and maintain a presence in the area.
    - Install traffic counters at main points of access into the ACEC.
    - Establish recreational trail connectivity from the Anza Trail to the Sears Point interpretive area once sensitive resources are adequately protected.
- Under all alternatives, all non-Federal lands acquired within the Gila River Cultural ACEC boundary established and withdrawn by *Public Land Order 7212* (September 5, 1996) would be managed under the current existing withdrawal. Under Alternatives C, D, and the Proposed Plan, continue to acquire from willing sellers those non-Federal lands within the current boundary of the Gila River Cultural ACEC withdrawn by Public Land Order 7212.
- Under Alternatives C and D, propose withdrawing up to an additional 1,200 acres of land within the Sears Point ACEC.

- Under the Proposed Plan, propose withdrawing up to an additional 4,900 acres within the proposed Sears Point ACEC expansion (see Map 2-1e-3).
- Except for prior existing rights, surface occupancy for discretionary actions, including but not limited to oil and gas leases, mineral material disposals, and ROWs, would not be authorized inside the 3,700-acre core area. Surface occupancy for discretionary actions within the ACEC, but outside of the core area, would be avoided to the extent practicable. Installation of facilities to protect, interpret, or manage ACEC resource values would be allowed within the entire ACEC, including the core area.
- Prohibit collection of dead, downed, and detached firewood and of vegetative materials inside the 3,700-acre core area (see Map 2-1e-3).
- Limit the 3,700-acre core area to day-use only (see Map 2-1e-3).
- Follow the management actions for the Fred J. Weiler Vegetation Management Area, which are located in Section 2.5, Vegetation Management.

Administrative Actions

- The existing Gila River Cultural Area ACEC would be renamed as the Sears Point ACEC under Alternatives B, C, D and the Proposed Plan.
- Develop an ACEC plan that includes specific management prescriptions for balancing increasing public visitation with protection of natural and cultural resources, in coordination with interested partners.
- Require visitors to stay on designated hiking trails in the interpretive area once the trails are established.
- Throughout the life of the plan, determine the public demand for overnight camping opportunities within the ACEC expansion area. If structured overnight camping opportunities are needed to reduce impacts to natural and cultural resources, designate a campground within the proposed ACEC expansion area at a reasonable distance away from sensitive resources.
- Work with interested partners to establish an operational recreational trail within the designated Anza Trail Corridor.
- Inventory and monitor mesquite trees along the Gila River to determine age, structure, and health. Develop protection measures if necessary.

G. WALTERS CAMP ACEC

The Walters Camp ACEC lies adjacent to the Colorado River and an existing 18-acre BLM recreation concession lease. The private lands adjacent to the proposed ACEC are being developed for seasonal housing. The recreational opportunities and development in this area is causing increased public use, including OHV and boater/personal watercraft use, in and around the proposed ACEC. The proposed area was also analyzed as a SCRMA under Alternative C and the Proposed Plan. The relevance and importance for this ACEC includes significant cultural and biological resources which include cultural resource sites, Native American traditional use, riparian corridors, washes, wildlife habitat, rare geologic features, high scenic quality, and river access.

Desired Future Conditions

- Maintain properly functioning riparian areas that provide habitat for neotropical migratory birds and other wildlife.
- Ensure that the proposed ACECs recreational, natural, and cultural resources remain available for present and future generations.

Management Actions

- Designate the 4,500-acre Walters Camp ACEC under Alternative D.
- Acquire available private and State inholdings from willing sellers for improved comprehensive management.

Administrative Actions

- Inventory vegetation and wildlife within the ACEC to understand the riparian habitat values that exist in the area.
- Coordinate management objectives utilizing the *Final Ehrenberg-Cibola Recreation Area Management Plan* (USDOI BLM 1994a).
- Coordinate and collaborate with Native American tribes, Reclamation, CDFG, and USFWS on issues including habitat restoration, invasive species, and water quality and delivery.

2.4 COORDINATED MANAGEMENT AREAS

Currently there are two areas within the planning area that are managed in coordination with other agencies. These are Fortuna Pond (30 acres) and Mittry Lake Wildlife Area (3,800 acres) (see Maps 2-2a and 2-2c). CMAs are not allocations under the *Land Use Planning Handbook* or FLPMA. However, they are recognized areas with specific management prescriptions and partnerships. Fortuna Pond and Mittry Lake were established under different authorities than FLPMA. FLPMA applies to these areas because BLM takes actions to manage the areas as agreed to by other agencies (i.e. DM 613, management responsibilities for recreation, endangered species, etc.).

Table 2-3
Coordinated Management Areas by Alternative

Coordinated Management Area	Alternative (total acres)				
	A	B	C	D	E
Fortuna Pond	30	30	30	30	30
Limitrophe	n/a	4,500	SCRMA	ACEC	4,500
Mittry Lake Wildlife Area	3,800	3,800	3,800	3,800	3,800

2.4.1 FORTUNA POND COORDINATED MANAGEMENT AREA

The Fortuna Pond CMA would continue the existing 30-acre area under all alternatives (Map 2-2a). The approved RMP would carry forward BLM responsibilities to manage recreation and wildlife activities in the Fortuna Pond area under DM 613. Reclamation and AGFD also have responsibilities for managing the pond under their individual authorities. The pond is a mitigation requirement to replace lost fishing opportunities on the Colorado River as a result of the Colorado River Salinity Control Project.

Vision for Coordinated Management

- Ensure that Fortuna Pond continues to provide recreational fishing opportunities as mitigation under the Title I contract for the Colorado River Basin Salinity Control Project.
- Provide adequate facilities for the site to accommodate visitor use.

Management Actions

- Continue managing the 30-acre Fortuna Pond in cooperation with the AGFD and Reclamation.
- Finalize and implement the *Fortuna Pond Management Plan*, which would guide management of the area. Until the document is finalized and implemented by the three agencies, the *Draft Fortuna Pond Management Plan* would serve as guidance.

Administrative Actions

- Identify the responsibilities of each agency having management authority.
- Achieve consensus with Reclamation, AGFD, and resource stakeholders to cooperatively manage Fortuna Pond for recreation and fishing opportunities.
- Remove litter and illegal dumping as funding and personnel allow.

2.4.2 LIMITROPHE COORDINATED MANAGEMENT AREA

The Limitrophe Division of the lower Colorado River was identified as the proposed Limitrophe CMA in Alternative B and the Proposed Plan. The Limitrophe CMA would encompass the same 4,500 acres of land along the International Boundary with Mexico identified in the Limitrophe ACEC under Alternative D (Map 2-2b). There are numerous jurisdictions managing varying aspects of the resources, along with a variety of stakeholders with interests in the Limitrophe. The intent of the proposed Limitrophe CMA is to unite the mandates, communicate activities, and responsibilities of multiple jurisdictions and stakeholders while providing a level of protection to the riparian, cultural, and traditional resource values of the area. BLM land use planning decisions which apply to the Limitrophe area are found in other sections in the RMP.

Vision for Coordinated Management

- A group would constitute the guiding body for the U.S. side of the Limitrophe area to share information for the future of the Limitrophe, and would not be controlled by any single agency.
- Develop an MOU and promote cooperation between its signers to create a partnership for the future of the Limitrophe.
- Ensure that each resource value or issue identified by the stakeholders is addressed in the planning and management of the area.
- Each agency or sovereign nation with land management jurisdiction would make decisions independently of the stakeholder group, using information and facts from group meetings and the MOU. A charter would not be needed, because the group would not have voting capability for actions where decisions are required by agencies.
- Protect and maintain riparian habitat and marsh vegetation to retain biological diversity and enhance potential habitat to support neotropical migratory birds, special status species, and other wildlife.

Management Actions

- Prepare a CMA management plan in cooperation with stakeholders using facts and information from the group. Develop coordinated goals and objectives for management based on input from all stakeholders.
- The management plan would:
    - Define roles, jurisdictions, and working relationships of each agency, non-government stakeholders, private landowners, and other partners.
    - Identify goals and objectives to maintain important riparian habitat values within the constraints of differing agency jurisdictions in the area.
    - Contain goals and objectives to protect and maintain the characteristics of the Limitrophe area that have been identified by Native American tribes and groups as important for traditional use.
    - Contain goals and objectives to provide for use of, and access to, sacred sites and other places of traditional cultural importance by Native American tribes, when such places are identified through government-to-government consultation.
    - Balance International Border public health and safety issues with resource protection.
    - Incorporate decisions which apply to the Limitrophe area from other sections of this RMP to clarify BLM roles and sideboards to the group.
    - Address the following BLM issues: recreational uses of the area; dead, downed, and detached firewood collection; fire management; invasive non-native species; endangered species and conservation measures to protect them, cultural resources; traditional use; habitat integrity; access; habitat restoration; water sources; and public health and safety.
- Allow no surface occupancy for leasable minerals.
- Allow no salable mineral materials within the Limitrophe area.
- Restore degraded or salt cedar habitats to appropriate vegetation when and where practicable.

Administrative Actions

- Participate in working groups, meetings, and task force settings to collaborate with interested stakeholders.
- Invite public as well as agencies and organizations to participate in the RMP.
- Remove litter and illegal dumping as funding and personnel allow.

2.4.3 MITTRY LAKE WILDLIFE AREA

The Mittry Lake Wildlife Area is cooperatively managed by AGFD, BLM, and Reclamation under a lease, cooperative agreement, contract agreement, and wildlife area management plan to provide for wildlife-related recreation. The Mittry Lake Wildlife Area CMA would continue the 3,800-acre CMA within all alternatives (Map 2-2c). The approved RMP would carry forward BLM responsibilities to manage recreation and wildlife activities on Reclamation-withdrawn land at Mittry Lake under DM 613.

Vision for Coordinated Management

- Provide wildlife habitat for the benefit of wildlife and compatible opportunities for fish and wildlife-oriented recreation.

Management Actions

- Follow the lease, cooperative agreement, contract agreement, and wildlife area management plan to guide management of the wildlife area under the provisions of the Fish and Wildlife Coordination Act.

Administrative Actions

- Each agency would coordinate activities on a regular basis under guidance of the contract agreement.
- Remove litter and illegal dumping as funding and personnel allow.
- Implementation of the NRT extension at Betty's Kitchen would be a site-specific action and would be coordinated with AGFD under the Mittry Lake Wildlife Area lease and cooperative agreement and according to the Sikes Act. Before any ground-disturbing activity, AGFD, Reclamation, and BLM would need to reach agreement on specific aspects of the trail extension. The Federal action would be disclosed to the public for comment according to the NEPA process.

2.5 VEGETATION MANAGEMENT

Vegetation management on BLM-administered lands follows guidance from the BLM Land Use Planning Handbook. The guidance instructs the BLM to identify the desired mix of vegetation types, vegetation management areas, sensitive plant species, priority plant species, management for invasive non-native plants, and vegetative use authorizations.

Vegetation communities within the planning area include mixed riparian habitat and wetlands, mesquite bosques, desert wash woodlands or xeroriparian scrub, paloverde-mixed cacti on bajadas and rocky slopes, creosote-bursage, mountain uplands, and isolated dune complexes. YFO strives to maintain the health of upland vegetation and riparian-wetland communities according to Arizona BLM's Land Health Standards 2 and 3 (see Land Health Standards Section of this chapter) and according to Riparian 2000, a BLM initiative which identifies a goal of 75 percent of riparian areas in proper functioning condition.

The basis for managing vegetation, riparian-wetland, and invasive or noxious weeds on BLM-administered lands can be found in the following Federal and State laws, regulations, policies, and guidance: Arizona Native Plant Law of 1993; FLPMA of 1976; Public Rangelands Improvement Act of 1978; CWA of 1977; EO 11990 Protection of Wetlands; EO 11988 Floodplain Management; Colorado River Floodway Protection Act of 1986; Federal Noxious Weed Act of 1974; EO 13112 Invasive Species Control; BLM MS 1740 *Renewable Resource Improvements and Treatments*; BLM Manual 9011 *Chemical Pest Control*; *Environmental Impact Statement for Vegetation Treatments, Watersheds and Wildlife Habitats on Public Lands Administered by the BLM in the Western United States, including Alaska* (USDOI BLM 1991); LCR MSCP (USDOI Reclamation et al. 2004); USDOA NRCS *Ecological Site Guides*; BLM *Manual* 6500 – *Wildlife, Fish and Plant Resources*; and BLM Manual 6840 – *Special Status Species*.

Guidance for the management of riparian areas, both flowing lotic systems and stationary lentic systems, is derived from BLM Technical Reference on Proper Functioning Conditions (1737-9, 1737-11, and 1737-15).

Desired Future Conditions

The following Desired Future Conditions would be applied throughout the entire planning area.

- Biological diversity of native plant communities and rare species is maintained in balance with multiple-uses of the land and sustained ecological function.
- Upland and riparian–wetland areas exhibit a mosaic of native plant communities.
- Riparian–wetland areas achieve or are moving towards properly functioning condition. Riparian, floodplain, and wetland areas enhance water quality, improve water storage, increase groundwater recharge, and provide quality fish and wildlife values.
- Forage on rangelands continues to support wildlife and grazing in a manner consistent with other resource management objectives or uses.
- Special status species and VHAs are protected from ground-disturbing recreation, such as OHV use.

Management Actions

The following management actions would be applied throughout the entire planning area.

- Protect or restore native species in upland and riparian communities through an integrated weed management approach emphasizing prevention, containment, and early detection of invasive weeds.

- Maintain vegetation communities that stabilize soils and reduce erosion and air quality degradation.
- Unproductive or non-functioning upland and riparian–wetland sites would be restored to desired plant communities based on ecological site and capability potential.
- Ensure that restoration and maintenance actions would benefit special status and priority plant and animal species and their habitats. (Appendix 2-B lists special status and priority plants and animals).

Administrative Actions

- Assess rehabilitation of burned areas on a case-by-case basis. Preference would be given to VHAs, riparian areas with habitat for special status species, ACECs, and WHAs.

2.5.1 DESIRED PLANT COMMUNITIES COMMON TO ALL ALTERNATIVES

The following Desired Future Conditions would be applied wherever the following desired plant communities exist in the planning area.

A. MIXED RIPARIAN HABITAT AND WETLANDS

- Riparian habitats would contain a diversity of native trees and herbaceous plants adapted to hydric soils. Lands along the Colorado and Gila rivers would exhibit strong species diversity and are composed of native riparian obligate trees (such as cottonwood [*Populus* spp.] and willow [*Salix* spp.]) of various age and size classes from seedlings and saplings to large mature trees with spreading canopies.
- Bank vegetation would be composed of native species capable of withstanding flood events to reduce soil loss and bank erosion.
- River corridor (including floodplains) and riparian-wetland associated habitat types covered in the LCR MSCP would provide a variety of habitat types for resident or migratory aquatic and terrestrial species. These habitat types include riparian areas, open water, backwaters, and marshes.

B. MESQUITE BOSQUES/WOODLANDS

- Mesquite bosques/woodland communities would contain trees of various size and age classes, with an understory of native perennial grasses, forbs, and shrub species.
- Identify and protect mesquite bosque communities within the planning area.

C. DESERT WASH WOODLANDS

- Multi-layered desert wash woodlands (xeroriparian scrub) would be dominated by perennial vegetation including trees, grasses, shrubs and forbs which provide for hydrologic connectivity and geomorphic integrity (i.e., sediment capture and storage, energy dissipation, bank stability).
- Diverse vegetative composition and structure would include such species as foothills paloverde (*Cercidium microphyllum*), blue paloverde (*Cercidium floridum*), desert willow (*Chilopsis linearis*), ironwood (*Olneya tesota*), mesquite (*Prosopis* spp.), smoke tree (*Psorothamnus spinosus*), and catclaw acacia (*Acacia greggii*). Size and growth form, such as overhanging branches, mid-story and under-story vegetation are represented by naturally occurring species of moderate density.
- Ensure sufficient bank and floodplain vegetation (including along braided channel floodplains) that provides landscape habitat connectivity and physical stability which in turn supports ground- and stem-dwelling species.

D. PALOVERDE–MIXED CACTI ON BAJADAS AND ROCKY SLOPES

- Paloverde–mixed cacti communities would have diverse vegetative composition and structure, from small shrubs to large trees (such as ironwood, paloverde, and mesquite) interspersed with a variety of cacti, such as mammalaria (*Mammalaria* spp.), prickly pear (*Opuntia* spp.), cholla (*Opuntia* spp.), barrel cactus (*Ferocactus wislizenii*), hedgehog (*Echinocereus* spp.), and saguaro (*Cereus giganteus*). Where potential exists, saguaro forests would support medium-to-high densities of saguaro, with all age classes represented.

E. CREOSOTE–BURSAGE

- Maintain unfragmented creosote-bursage habitats that function as landscape connectivity corridors (i.e., movement corridors and foraging areas) between adjacent plant communities.
- Maintain ground cover in this vegetation type, with native or naturalized species at the maximum amount appropriate for the site conditions to provide hiding cover and forage for wildlife species.

F. MOUNTAIN UPLANDS

- Botanically diverse vegetative communities would include a combination of desert, chaparral, and semi-desert grassland species in amounts appropriate to site conditions. Some areas may include relict populations of oak and elephant tree (Weinstein et al.2003).

G. DUNE COMPLEXES

- Dunes support a diverse mix of native species composed of shrubs, grasses and annual forbs.

- Identify the location of intact dune complexes throughout the planning area.
- Sensitive or rare species endemic to dunes are found in all size classes (i.e., scaly sand plant [*Pholisma arenarium*] in the north of La Posa Plain).

Management Actions Common to all Desired Plant Communities

- Mitigate where plants and parts of plants would be destroyed from an unavoidable impact as a result of development, disturbance, or disposal.
- For BLM-authorized surface disturbing activities, impacts to vegetation would be mitigated through:
  - Avoidance;
  - Use of minimum reasonable and practical tools and equipment (such as trimming trees instead of removal where appropriate, use of existing routes and ROWs instead of creation of new ones, crushing vegetation instead of blading it);
  - Soil stabilization and vegetative rehabilitation;
  - Replacement, which would follow an approved protocol and use of previously disturbed sites;
  - Transplanting of plant species (e.g., beavertail cactus, cholla, barrel cactus, pincushion cactus) directly on site or onto neighboring public lands where feasible using approved protocol would be encouraged; and
  - Salvage of plants and plant parts. Salvage would be authorized and encouraged on a case-by-case basis pursuant to applicable Federal and State laws and regulations governing the sale, disposal, and transportation of plants. Plants salvaged would be limited to those allowable under the Arizona Native Plant Law. Plants and parts of plants would be replanted on public lands or salvaged for public, private, commercial, educational, research, or other appropriate purposes. Special consideration would be given to educational facilities, botanic gardens, and public institutions.
- Follow ROWs construction with rehabilitation measures including imprinting, contouring, debris and brush replacement, and invasive plant treatment. Avoid blading new routes to the greatest extent possible. Where access is needed to accomplish objectives, crush vegetation instead of blading and denuding the ground surface.
- Avoid desert wash woodlands to the greatest extent possible during BLM-authorized surface disturbing activities.
- Require use of native plant materials for landscaping at developed recreation sites within public lands.
- Require concessions to get BLM approval for landscaping plans. Require the use of native plants and drought adapted vegetation.

2.5.2 VEGETATION HABITAT MANAGEMENT AREAS

YFO is proposing three VHAs in various alternatives in the planning area (Maps 2-3a through 2-3e), as authorized by IM AZ-2005-007. These areas contain populations of priority plant species (Appendix 2-B) and native plant assemblages and would be allocated as VHAs. The

BLM Land Use Planning Handbook states that VHAs are areas of ecological importance that are recognized for significant factors such as density, diversity, size, public interest, remnant character, or age. An Elephant Tree Community VHA is proposed under Alternative D and the Proposed Plan for 10,000 acres. The Blue Sand Lily Community is proposed under Alternative D and the Proposed Plan for 500 acres. Fred J. Weiler Greenbelt is an existing area which is also proposed under Alternatives C, D, and the Proposed Plan (12,400 acres).

VHA alternatives are presented in Table 2-4 below and Maps 2-3a through 2-3e. VHAs may increase or decrease in acreage based upon new information through adaptive management.

Table 2-4
Vegetation Habitat Management Areas by Alternative

Vegetation Habitat Management Areas	Alternative (BLM acres)				
	A	B	C	D	E
Elephant Tree community (*Bursera microphylla*)	n/a	0	0	10,000	10,000
Blue Sand Lily community (*Triteleiopsis palmeri*)	n/a	0	0	500	500
Fred J. Weiler Greenbelt	12,400	0	12,400	12,400	12,400

The Elephant Tree VHA would protect a proposed priority plant, *Bursera microphylla,* which is a shrub with subtropical affinities. The trunk and lower branches are thickened, the bark exfoliates in sheets, the plant exudes resin, and the leaves are aromatic. It is found in isolated populations of the Sonoran Desert on mountains. The population in the Gila Mountains is one of the most well represented stands in the U.S.

The Blue Sand Lily VHA would protect the *Triteleiopsis palmeri,* a flowering plant listed as an Arizona BLM sensitive species. This rare plant grows from bulblets and only flowers in wet years. The VHA is located on stabilized sand dunes of the Gila River Mesa and is the northernmost known population in the U.S. It is also found in Baja California and the Gran Desierto in Sonora, Mexico.

The Fred J. Weiler Greenbelt includes portions of Gila River riparian habitat located in the planning area and would be designated as a VHA to perpetuate a previous land designation. The greenbelt was originally segregated as a Resource Conservation Area in 1970 to set aside the riparian habitat for game birds for hunting along the Gila River. The VHA would emphasize the original values of the Resource Conservation Area, such as "nesting areas for white-winged dove, mourning dove, and songbirds, public recreation, historic significance, flood and erosion control and water conservation" (*Federal Register* Vol. 32, No. 178, September 14, 1967).

Desired Future Conditions

- Ensure that plant species-populations are stable or increasing with recruitment over all age classes with no net loss of habitat or fragmentation of plant communities.
- Ensure the Fred J. Weiler Greenbelt is managed for habitat values, specifically to benefit dove, quail, and thrasher populations.

Management Actions

- Continue Management of the Fred J. Weiler Greenbelt under Alternatives A, C, D, and the Proposed Plan.
- Allocate the 10,000-acre Elephant Tree Community as a VHA under Alternative D and the Proposed Plan.
- Allocate the 500-acre Blue Sand Lily Community as a VHA under Alternative D and the Proposed Plan.
- Restrict BLM-authorized ground-disturbing activities in the VHAs to protect focal plant species-populations. Restricted activities would include mineral extraction, unmanaged OHV use, and livestock grazing.
- Develop a management plan for the Fred J. Weiler Greenbelt in cooperation with AGFD and USFWS.
- Protect mesquite bosques and native woodlands through implementation of fire breaks and hazard fuels reduction.
- Prioritize treatment of non-native invasive species, where appropriate to meet management objectives.

Administrative Actions

- Inventory and map the focal plant communities in the VHAs. Monitor ground-disturbing activities by OHV use and other sources of disturbance or habitat alterations to assess the conditions and trends of plant species-populations.
- Assess the potential threats to blue sand lily populations in the foothills area of Yuma, Arizona. These focal plant species-populations are potentially threatened by OHV and invasive, non-native species such as Sahara mustard (*Brassica tournefortii*).
- Identify additional plant populations which meet VHA criteria.

2.5.3 BLM SENSITIVE PLANT SPECIES COMMON TO ALL ALTERNATIVES

BLM sensitive species are taxa that are not already included as BLM special status species under (1) federally listed, proposed, or candidate species; or (2) State of Arizona/State of California listed species (see Appendix 2-B). BLM policy is to provide these species with the same level of protection as is provided for candidate species in BLM Manual 6840.06 C, that is to "ensure that actions authorized, funded, or carried out do not contribute to the need for the species to become listed." The sensitive species designation is normally used for species that occur on BLM-administered lands for which BLM has the capability to significantly affect the conservation status of the species through management. BLM *Manual* 6840.06 E provides factors by which a native species may be listed as "sensitive" if it:

- Could become endangered or extirpated from a State, or within a significant portion of its range in the foreseeable future;

- Is under status review by the USFWS and/or National Marine Fisheries Service;
- Is undergoing significant current or predicted downward trends in (1) habitat capability that would reduce a species' existing distribution; and/or (2) population or density such that federally listed, proposed, candidate, or State listed status may become necessary;
- Typically consists of small and widely dispersed populations;
- Inhabits ecological refugia, or specialized or unique habitats; or
- Is State-listed, but which may be better conserved through application of BLM sensitive species status.

Desired Future Conditions

- Conserve sensitive plant species and other species at risk where the quantity and quality of habitat to support population persistence is a concern. Maintain or restore unique habitats (e.g., unique assemblages of rare plant species) throughout the planning area.
- Protect sensitive plant species and associated habitats to keep them from becoming listed under the ESA. Provide habitat capable of maintaining native plant species and supporting plant biodiversity to meet ecological integrity and social needs.
- Achieve stable or increasing populations of sensitive plant species over time with adequate pollination, nurse plants, recruitment, and survivorship. Maintain desired habitat conditions or restore degraded habitats to promote pollinator success and survival.
- Enhance public understanding of the importance of maintaining rare and culturally important plants through educational programs regarding native plant conservation, biodiversity, and invasive non-native plant species.

Management Actions

- Protect sensitive plant species and relict populations that are vulnerable to habitat disturbance. Minimize potential threat of imperiled status as a result of land and resource uses-related disturbances on BLM-administered lands.
- Implement protection and restoration measures, such as fencing, seeding by using native species, and native plant seed collection, for sensitive plant species.
- Acquire lands from willing landowners for conservation banking of natural communities with sensitive plant species, especially if loss of essential habitat is anticipated.
- Populations of non-native plants would be reduced or eradicated in occupied and potential rare plant habitat. Aggressively treat non-native invasive species where appropriate to protect sensitive plant species.

Administrative Actions

- Continue to survey and map locations of suitable habitat occupied by sensitive plant species.
- Collect seeds of native plants to be used in rehabilitation and restoration activities. Seeds must be collected in accordance with seed zones or breeding zones for native plants.

- Monitor and evaluate the status and trends of rare and endemic plant species with emphasis on sensitive plant species. Monitor the rare plant populations according to BLM botanical standards and *Rare Plants 2000 Strategy*.
- Collaborate with academic institutions and non-governmental organizations (i.e., Arizona and/or California Native Plant Society, Arizona or California Natural Heritage Program) for research and monitoring of sensitive plant species. Support research efforts for sensitive plants to determine species distribution, phenology, pollination ecology, habitat dynamics, and susceptibility to disturbances during key life stages.
- During site/project-level analysis, inventory occupied and potential sensitive plant habitats and prioritize opportunities for protection and/or restoration. Also, identify and map areas of non-native plant invasions within rare plant habitats.
- Continue to identify potential botanical special interest areas (i.e., areas with unique habitat features, rare plant communities; or areas with high-quality cryptogrammic soil crusts with lichens, bryophytes, and fungi) and recommend them for protection.

2.5.4 PRIORITY PLANT SPECIES COMMON TO ALL ALTERNATIVES

Priority plant species are rare, unusual, or key species that are not BLM sensitive or listed as threatened and endangered. They are worthy of special treatment and indicate ecological health, biological diversity, and unique habitats. Priority plant species have been located on or near the planning area. The priority plant species list (Appendix 2-B) would be updated on a regular basis to reflect new information and survey data. These species are considered priority species due to ecological importance, rarity, and human interest. Identification of priority plant species would help prevent the avoidable loss of these plants due to development and implementation of other multiple use objectives.

Desired Future Conditions

- Ensure that plant species-populations are stable or increasing, with adequate recruitment given the ecological conditions and dynamics associated with the Sonoran Desert. No net loss of habitat or fragmentation of plant communities.
- Promote landscape-scale conservation of priority plant species to protect or restore botanical resources of concern and to ensure consistent management across jurisdictional boundaries.
- Protect priority plant species and relict populations that are vulnerable to habitat disturbance. Minimize the potential threat of imperiled status as a result of land- and resource-uses-related disturbances on BLM-administered lands.

Management Actions

- Implement protection and restoration measures, such as fencing, seeding by using native species, invasive weeds treatment, and native plant seed collection, for priority plant species.
- Acquire lands from willing landowners for conservation banking of natural communities with priority plant species, especially if loss of essential habitat is anticipated.

- Populations of non-native plants would be reduced or eradicated in occupied and potential rare plant habitat. Aggressively treat non-native invasive species where appropriate to protect priority plant species.

Administrative Actions

- Survey, map, and monitor natural plant communities with special emphasis on priority plant species.
- Follow and implement the BLM *Rare Plants 2000 Strategy* (USDOI BLM 2000) for rare plants and natural plant communities to maintain biological diversity through the conservation of natural plant communities and rare plant species.
- Identify status of rare and endemic plant species or communities through collaborative efforts between BLM and other governmental and non-governmental agencies (i.e., USFWS, AGFD, CDFG, Arizona and California Natural Heritage Programs, Arizona and California Native Plant Societies, The Nature Conservancy, and others).
- Survey the presence of invasive, non-native species within the scrub oak relict populations at three sites in the Eagletail Mountains Wilderness and at Dripping Springs.
- Use regional databases such as Southwest Environmental Information Network (http://seinet.asu.edu/) to further understand species status.

2.5.5 INVASIVE NON-NATIVE PLANTS COMMON TO ALL ALTERNATIVES

Non-native, invasive and State and federally listed noxious weed species collectively constitute a major threat to the biodiversity on BLM-administered lands. Two critical components of managing these species are (1) identifying and assessing those species that threaten biodiversity and other ecological functions and values and (2) prioritizing species for management efforts, which must be based, at least in part, on the ecological impacts imparted by these invaders (see Appendix 2-B).

Non-native invasive species often degrade aesthetic vegetation values, tourism opportunities, or degrade recreational value of public lands. Native species in upland and riparian ecosystems are competitively reduced and the ecological process altered when non-native plants (both noxious and invasive weeds) become established and flourish.

Desired Future Conditions

- Prevent the introduction or spread of non-native, invasive and State and federally listed noxious weed species.
- Enhance non-native invasive species management through a collaborative approach with fire management.

Management Actions

- Use an integrated pest management approach to ensure that the best methods available are implemented to prevent the introduction and control the spread of non-native plants, invasive plants, and noxious weeds.
- Treat invasive, non-native plant species using a combination of chemical, mechanical, manual, and biological methods.
- Treat non-native invasive species that constitute significant fuel load and fire threat directly by using integrated pest management or managed through fire breaks and other tactics.
- Conduct vegetation treatments of riparian areas dominated by salt cedar (*Tamarix ramosissima/chinensis*) along the lower Colorado River and Gila River corridors where ecological enhancement is possible. Where salt cedar is removed for the purposes of replanting with native species and restoration of a site, BLM would assess the likelihood of success on a case-by-case basis prior to implementation. Factors to consider include salinity, depth to groundwater, and soil structure. Salt cedar may also be removed to create permanent fire breaks, decrease hazard fuel load, protect existing native vegetation pockets, and allow for public health and safety as well as homeland security.
- Treat giant salvinia (*Salvinia molesta*) and other invasive, non-native species in aquatic ecosystems along the lower Colorado River.

Administrative Actions

- Conduct risk assessments and formulate BMPs to control infestations and spread of noxious or invasive weeds. The integrated pest management approach would include (1) early detection and rapid response (early treatment of newly invading species); (2) containment and treatment (control of established widespread infestations); (3) inventory, monitoring, and evaluation; and (4) public awareness, education, and outreach.
- Promote coordinated partnership for landscape-scale weed management across jurisdictional boundaries to achieve the desired conditions in a cost-efficient manner. Establish or update cooperative agreements and participate in local councils (i.e., Lower Colorado River Giant Salvinia Task Force and Steering Committee, Sonoran Desert Invasive Species Council, and King of Arizona Cooperative Weed Management Area) to maximize coordination and implement an integrative framework for weed management.
- Implement public outreach and interpretive programs to enhance public awareness regarding noxious or invasive weeds and associated impacts on biodiversity.
- Collaborate with State efforts of both California and Arizona (e.g., Arizona Invasive Species Council).
- Encourage equestrian groups to use weed-free hay.
- Require BLM contractors and employees to clean vehicles after traveling in areas with high noxious or invasive weed infestations.

2.5.6 VEGETATIVE USE AUTHORIZATION

BLM manages vegetation for habitat, multiple use, and sustained yield. This section describes firewood collection allocations, permitted uses, and non-permitted uses of vegetation resources.

Desired Future Conditions

- Ensure that vegetation resources are used at a sustainable level.
- Promote appropriate levels of dead, downed, and detached wood on the ground to provide wildlife habitat and reduce soil erosion.

Management Actions

Vegetative use authorizations apply to the entire planning area.

- **Wood Cutting.** Wood cutting of native species for commercial or household fuel wood use is currently not allowed in the planning area. It is not a sustainable activity due to the slow growth habit of most native trees. However, in order to achieve management objectives, such as hazardous fuels reduction or native plant propagation, commercial wood cutting would be allowed by issuance of a permit on a case-by-case-basis under Alternatives B, C, D and the Proposed Plan.
- **Plant and Seed Collection.** Commercial seed collection would require a permit on BLM-administered lands and must follow permit stipulations.
- **Plant Salvage.** Plant salvage would be allowed within the planning area on a case-by-case basis. Plant salvage would require prior written authorization from BLM as well as a permit from the Arizona Department of Agriculture as required by the Arizona Native Plant Law.
- **Scientific Plant Collection.** Scientific collection of vegetative materials, including seeds, would be permitted where appropriate through an annual letter of permission by the Arizona BLM State Office.
- **Native American Traditional Use.** Fees would not apply on BLM lands to Native Americans for the collection of non-commercial, personal use quantities of herbals, medicines, traditional use items, or items necessary for traditional, religious, or ceremonial purposes. Collection of federally listed threatened and endangered species would not be authorized (see Appendix 2-B).
- **On Site Campfire Wood Collection.** The public may collect dead, downed, and detached wood for personal campfire use, while camping on BLM-administered land. Standing dead wood is not authorized for use, nor is removal by any mechanical means.
- **Firewood Collection.** Under Alternative A, continue 134,700 acres of firewood collection closures. Under Alternative B, close 142,800 acres to firewood collection (Table 2-5). Under Alternative D, close 1,318,000 acres to firewood collection. Under Alternative C close 179,300 acres to firewood collection. Under the Proposed Plan, close 153,000 acres to firewood collection. On-site firewood collection would be closed in the areas illustrated in Maps 2-3a through 2-3e. New closures to firewood collection would be implemented through the establishment of supplementary rules, as outlined in 43 CFR 8365.1-6. Additional

closures to firewood collection may be implemented, if assessments indicate potential resource degradation.

Table 2-5
Firewood Collection Closures by Alternative

Area	Alternative (BLM acres)				
	A	B	C	D	E
La Posa Plain Planning Area	131,500	131,500	131,500	131,500	131,500
Imperial LTVA	3,200	3,200	3,200	3,200	3,200
Big Marias ACEC	0	4,400	4,400	4,400	2,900
Sears Point ACEC	0	3,700	28,500	28,500	3,700
Dripping Springs ACEC	0	0	11,700	11,700	11,700
Remaining Field Office	0	0	0	1,138,700	0
Total Acres Closed	134,700	142,800	179,300	1,318,000	153,000

BLM = Bureau of Land Management; LTVA = Long-term Visitor Area; ACEC = Area of Critical Environmental Concern

- **Other Vegetative Collection.** The public does not need written authorization to collect small amounts of commonly available renewable resources such as flowers, berries, nuts, seed, cones, and leaves for non-commercial purposes. Saguaro skeletons may not be collected for personal use or burned in campfires, as such use is not sustainable for this product in the planning area. The collection and possession of dead, downed, and detached ironwood at any one time is limited to three pieces, with an approximate weight not to exceed 10 pounds. The collection of standing dead plant material would not be allowed.

2.6 WILDLAND FIRE MANAGEMENT

YFO coordinates with other agencies to manage fire in accordance with the nationwide BLM fire policy and the National Fire Plan. This integrates fire and fuels management with other land and resource management activities to benefit natural resources and implement multiple-use on BLM-administered lands within Arizona and the portion of California that falls within the planning area.

The basis for fire management on BLM-administered lands can be found in Federal and State laws, regulations, policies, and guidance.

The Lower Colorado River subdivision of the Sonoran Desert is the predominant vegetation community within the planning area. This vegetation community is not considered to be fire adapted or dependent. The invasion of non-native species has created areas that are now prone to high intensity fires with high rates of spread.

Prior to 1935, wildfire was not a major cause of disturbance within the lower Colorado River riparian ecosystem. Flood control activities initiated after the completion of Hoover Dam allowed the widespread establishment of the exotic salt cedar. Suppression of annual floods has limited the ability of native plant communities to regenerate and has created a system where wildfire has become the major disturbance influencing riparian stand development. Wildfire and

the subsequent progression towards monotypic stands composed of salt cedar have been detrimental to many riparian obligate species.

The entire planning area would be managed as non-fire use. The management of lands is based on the Desired Future Condition of vegetation communities, ecological conditions, and ecological risks. The management of lands is determined by contrasting current and historical conditions and ecological risks associated with any changes. The condition class concept helps describe alterations in key ecosystem components such as species composition, structural stage, stand age, canopy closure, and fuel loadings.

The non-fire use management includes areas where mitigation and suppression are required to prevent direct threats to life or property. It includes areas where fire never played a large role, historically, in the development and maintenance of the ecosystem, and some areas where fire return intervals were very long. It also includes areas (including some Wildland Urban Interface [WUI] areas) where an unplanned ignition could have adverse effects to the ecosystem unless some form of mitigation takes place. Mitigation may include mechanical, biological, chemical, or prescribed fire to maintain non-hazardous levels of fuels, reduce the hazardous effects of unplanned wildland fires, and to meet resource objectives.

Desired Future Conditions

- Protect human life (both firefighters and public) and communities, property, and the natural resources on which they depend. Firefighter and public safety are the highest priority in all fire management activities.
- Improve public awareness of the role of fire in ecosystem restoration, wildfire risk and mitigation strategies, and wildfire safe community, preparedness, and response planning.
- Foster interagency and community interactions and cooperation to develop effective and integrated wildland fire and fuel management strategies across administrative boundaries to meet landscape-scale resource condition objectives.
- Reduce hazardous fuels around communities at risk within the WUI using mechanical treatment and prescribed fire, where applicable.
- Appropriate Management Response (AMR) for resource benefits would be full suppression.

Management Actions

- Implement the WUI fuels reduction program, with wildland fuels decreased and maintained at a manageable level, creating conditions conducive to safe, efficient, and effective firefighting.
- Prescribed and wildland fire techniques would be used to protect the values-at-risk (life and property) and to maintain or enhance the ecosystem health.
- Fire and fuels management strategies may include fire suppression, prescribed fire, and non-fire treatments (manual, chemical, mechanical, or biological treatments).
- Identify areas where prescribed fire use would be appropriate to maintain or restore desirable plant communities.

- Identify, prioritize, and implement an estimated annual average of 1,000 acres per year of fuel management over the life of the plan. Fuel treatments to reduce wildland fire risk would focus on the WUI areas and shrublands characterized as Fire Regime Condition Class II and III.
- Identify and implement post-fire stabilization and rehabilitation actions in burned areas to restore a functional landscape to meet the natural resource management objectives.
- Include wildfire hazard mitigation strategies in the Fire Management Plan for the planning area by identifying appropriate areas for prescribed fire use and mechanical, biological, or chemical treatments to reduce hazardous fuels to minimize the adverse effects of uncharacteristic wildland fires and meet resource objectives. The plan would also identify areas for exclusion from fire (through fire suppression), chemical, mechanical, and/or biological treatments.
- To the extent possible, implement the fire management activities-related conservation measures presented in Appendix 2-C to avoid, minimize, or mitigate potential impacts on federally protected species and habitats. Of the adopted conservation measures, some are mandatory and others are recommended. If the mandatory conservation measures for federally protected species and habitats cannot be implemented during wildland fire management activities (i.e., suppression, rehabilitation and restoration, and hazardous fuels reduction), YFO would be required to initiate ESA Section 7 consultation with the USFWS for the specific projects.
- In wilderness areas, when wildland fire suppression occurs, minimum impact suppression tactics identified in the Interagency Standards for Fire and Aviation Operations would be applied.
- Conduct fire management activities along NHTs in a manner that would avoid or minimize adverse impacts to existing resources and values identified in the legislative designation of the trails. For ACECs and Back Country Byways, the desired conditions and management prescriptions would be considered in implementing fire management activities.
- Wildland fire suppression activities would utilize methods with lesser ground disturbance to minimize potential adverse impacts on existing species and habitats. No heavy equipment (such as bulldozers) would be used unless approved by the YFO Manager.
- Use of fire retardants or chemicals adjacent to waterways would be in accordance with the Environmental Guidelines for Delivery of Retardant or Foam near Waterways, in accordance with the Interagency Standards for Fire and Aviation Operations (National Interagency Fire Center 2007).
- Protect all known cultural resources from fire management activities-related disturbance through consultation with cultural resource specialists.

Administrative Actions

- Establish an approved burn plan and follow the environmental prescriptions identified in the plan for fuels treatment using prescribed fire.
- Identify, prioritize, and plan fuels reduction projects using a uniform system for determining wildland fire risk in WUI (e.g., risk assessment and mitigation strategy).

- Identify AMR-related goals, objectives, and constraints for each fire management unit.
- Comply with Federal and State standards for smoke and air quality management for fuel treatment using prescribed fire.
- Collaborate with communities at risk within the WUI to develop strategies for wildfire hazard mitigations.
- Coordinate implementation of fuel reduction treatments with landowners, agencies, and Native American tribes.
- Establish or update cooperative agreements to maximize coordination with BLM's cooperators.
- Undertake education, enforcement, and administrative activities as measures to minimize human-caused wildfires. Education measures would include dissemination of information through various media on the natural role of fire within terrestrial ecosystems, interpretive sign program, and participation in fairs, parades, and other public outreach or contacts.
- Accomplish enforcement by providing training opportunities for BLM employees interested in fire-cause determination.
- Include expanded fire prevention media outreach and stakeholder/cooperating agencies involvement in administrative activities.

2.7 FISH AND WILDLIFE MANAGEMENT

The Sikes Act of 1974 authorized the USDOI in cooperation with State agencies responsible for the administration of fish and wildlife laws to plan, develop, maintain and coordinate programs for the conservation and rehabilitation of fish and wildlife (both game and non-game) on public lands within its jurisdiction.

In addition to the Sikes Act, the following laws, regulations, and policies direct the management of fish and wildlife on BLM-administered public lands: Migratory Bird Treaty Act of 1918; Fish and Wildlife Coordination Act of 1958; Fish and Wildlife Conservation Act of 1980; FLPMA; ESA of 1973, as amended; EO 12962- Recreational Fisheries; EO 13112—Invasive Species Control; EO 13186- Conservation of Migratory Birds; BLM Manual 6500—*Wildlife, Fish, and Plant Resources*; and BLM Manual 6840—*Special Status Species*.

The LCR MSCP is a multi-stakeholder Federal and non-Federal partnership responding to the need to balance the use of lower Colorado River water resources and the conservation of native species and their habitats in compliance with the ESA and other environmental laws. This is a long-term (50-year) plan to conserve at least 26 species along the lower Colorado River from Lake Mead to the Southerly International Boundary with Mexico through the implementation of a Habitat Conservation Plan. Most of the covered species are Federal and/or State listed and special status species. Reclamation is the lead Federal agency responsible for implementing the LCR MSCP over the 50-year term of the program. A Steering Committee consisting of 56 entities provides input and oversight functions in support of LCR MSCP implementation.

BLM would consider the goals and objectives of the AGFD's *Comprehensive Wildlife Conservation Strategy* (AGFD 2006), *Wildlife Management Program Strategic Plan* (AGFD 2007), and subsequent *State Wildlife Action and Strategic Plans* when implementing management actions. Such plans identify wildlife species and habitats, assess threats to their survival, and identify long-term conservation actions. The State of Arizona manages wildlife, while the BLM manages wildlife habitat. The Arizona BLM's *Five Year Strategy for the Wildlife, Fisheries, Botany, and Threatened and Endangered Species Programs* (USDOI BLM 2004b) would guide management actions.

Desired Future Conditions

The following Desired Future Conditions would be applied throughout the entire planning area.

- Priority habitats (i.e., mountain ranges, riparian areas, desert washes, sand dunes, abandoned mines and natural caves) and associated wildlife assemblages for terrestrial ecosystem management would remain in their present quality and quantity, at a minimum.
- Retain high-quality, connected, and sustainable fish and wildlife habitat.
- Fish and wildlife habitats capable of sustaining healthy populations would meet conservation, socio-economic (e.g., hunting, fishing, watchable wildlife), and Tribal needs.
- Suitable habitats and habitat linkages would remain available in both quality and quantity to promote genetic integrity for priority fish and wildlife species when planning terrestrial and aquatic ecosystem restoration.
- All livestock waters would provide safe, usable water for wildlife.
- Natural wildlife waters, such as unmodified tinajas and Dripping Springs, would remain in their natural state. Such waters are essential for ecological integrity and promote biological diversity. Any modifications to unmodified tinajas would be minimal to allow trapped animals to escape (e.g. stairs or escape ramps), and would be analyzed through site-specific NEPA.
- Limit the distribution and abundance of invasive plants and animals to current levels and reduce, from current levels, the impact of invasive species on native ecosystems through active management.
- Minimize the undesirable effects to fish and wildlife populations resulting from human activities, especially during critical life stages, through mitigation of potential impacts.
- Restore native species habitat distribution and occurrence (especially for priority species), conserve biological diversity, and maintain genetic integrity and exchange, and improve availability of suitable habitats and habitat linkages.

Management Actions

The following Management Actions would be applied throughout the entire planning area.

- Establish ground-level wildlife water developments at livestock waters where feasible. An enclosure of three to seven acres containing the water source, storage, and related riparian habitat would be built to exclude livestock. Where terrain permits, livestock water would be provided at least 0.5 mile outside of the fenced enclosures.

- Modify existing livestock water facilities for safe wildlife use as funding and opportunities permit. The following standards apply to the design and modification of livestock waters.
  - The above-ground height of livestock troughs and tanks would not exceed 20 inches.
  - YFO would install wildlife escape ladders in each facility and provide ramps for small bird and mammal access in cooperation with AGFD and CDFG.
  - Storage tanks would have either a metal or floating vinyl cover to reduce evaporation and prevent wildlife from drowning.
- Initiate restoration activities in priority habitats to move toward desired habitat conditions and provide functional landscapes to sustain the fish and wildlife species-populations. Wildlife habitat improvement projects for the planning area would be implemented in coordination with AGFD, CDFG, and/or USFWS, as necessary.
- Support reintroductions, transplants, and supplemental stockings (augmentations) of wildlife populations (as defined in BLM *Manual* 1745) in current or historic ranges in collaboration with AGFD, CDFG, and/or the USFWS and other agencies where such reintroductions are within areas deemed suitable through BLM policy and procedure to (1) maintain populations, distributions and genetic diversity; (2) conserve or recover threatened or endangered species; (3) restore or enhance native wildlife diversity and distribution; and (4) maintain isolated populations. Species that could be reintroduced, transplanted or augmented include but are not limited to Sonoran pronghorn (*Antilocapra americana sonoriensis*), cactus ferruginous pygmy-owl (CFPO) (*Glaucidium brasilianum cactorum*), desert mule deer (*Odocoileus hemionus*), bighorn sheep (*Ovis canadensis mexicana*), javelina (*Pecari tajacu*), desert tortoise (*Gopherus agassizii*), beaver (*Castor canadensis*), lowland leopard frog (*Rana yavapaiensis*), Gila topminnow (*Poeciliopsis occidentalis occidentalis*), desert pupfish (*Cyprinodon macularius*), Colorado pikeminnow (Ptychocheilus lucius), razorback sucker (*Xyrauchen texanus*), woundfin (*Plagopterus argentissimus*), bonytail chub (*Gila elegans*), flannel mouth sucker (*Catostomus latipinnis*), roundtail chub (*Gila robusta*), burrowing owl (*Athene cunicularia hypugea*), and Aplomado falcon (*Falco femoralis septentrionalis*).
- Manage non-native species identified as pests in accordance with applicable BLM, AGFD, and CDFG management policies depending on administrative area.
- Design and implement vegetation, fire and fuels, and watershed resource management-related projects that would promote enhancement of existing habitat conditions or restoration of degraded habitat conditions for the selected fish and wildlife species of emphasis. Vegetation and fuels management for wildlife habitat improvement should consider the following habitat conditions or features: (1) amount, quality, and distribution of suitable habitats; (2) juxtaposition and connectivity to other habitat areas; (3) influence of roads-related degradation; and (4) ecosystem disturbance processes that develop and modify habitats.
- Construct, maintain, restore, redevelop, or enhance wildlife waters for native wildlife species-populations. Water developments would include design features to ensure safety and accessibility to water by wildlife.
- The planning area contains suitable habitat for relocating and releasing individual animals and release of rehabilitated wildlife. These types of wildlife releases are not intended to

establish new populations but are appropriate in areas of suitable habitat. Wildlife species that could be released include mountain lion (*Puma concolor*); burrowing owl; and other raptor, reptile, and game species.

Administrative Actions

The following Administrative Actions would be applied throughout the entire planning area.

- Develop landscape-specific habitat management plans through collaborative partnership with appropriate agencies.
- Enhance public awareness of fish and wildlife management through conservation education and interpretive programs.
- Maintain all existing wildlife waters to provide a perennial water source.
- Coordinate animal damage control with the Animal and Plant Health Inspection Service and AGFD and CDFG.
- Cooperate with AGFD and CDFG to conduct wildlife surveys, research, and other management actions.

2.7.1 PRIORITY SPECIES

Potential priority species for the planning area include bats, big game mammals, non-game migratory birds, raptors, and game birds. A list of priority species that occur or may occur in the planning area is found in Appendix 2-B.

Desired Future Conditions Common to All Priority Species

The following Desired Future Conditions would apply throughout the entire planning area where habitat for priority species exists.

- Provide well-distributed habitat and connectivity corridors capable of supporting self-sustaining populations of interacting groups of priority species for biodiversity, socio-economic, and Tribal needs.
- Provide suitable habitat capable of maintaining stable or increasing trends in abundance to help keep species from becoming federally listed.
- Prevent, where and when possible, human-caused disturbance to habitats that result in animal mortalities or undesirable effects to populations of priority species during critical stages.
- Maintain suitability of existing bat roost sites and maintain or enhance accessibility to key open watering sites.
- Minimize adverse effects to big game habitat from project-related disturbance, particularly during lambing and fawning seasons. Lambing and fawning areas and periods should be determined during site/project-level planning to address big game exposure to stress during critical periods.
- Maintain, restore, or enhance raptor populations through proper habitat management.

A. BATS

Management Actions

- Install bat gates at abandoned mine sites that do or could support bat roosts.

Administrative Actions

- Inventory and monitor caves, mines, and other natural and artificial roosts and habitats that support, or once supported, the most important bat colonies and populations.
- Identify key open watering sites for bats.
- Prioritize natural and manmade roosts for protection, especially those containing large populations of a single species or diverse collections of species.
- Monitor the potential effects of land management and resource use, and other natural or human-caused disturbances on bat habitat.
- Evaluate the effectiveness of conservation measures or management actions implemented including bat gates, manmade roosts, and other habitat protection and restoration actions.
- Educate the public on bat conservation through collaborative partnership with Bat Conservation International, a non-governmental organization, and by integrating education materials into other successful programs.

B. BIG GAME SPECIES

Management Actions

- Comply with BLM guidelines to prohibit domestic sheep and goat grazing within nine miles of desert bighorn sheep habitat to avoid disease transmission according to Instruction Memorandum (IM) 98-140 *Revised Guidelines for Management of Domestic Sheep and Goats in Native Wild Sheep Habitat.*
- Roads traversing bighorn sheep habitat may be closed, limited, or rerouted during the lambing season in specific areas consistent with safety and maintenance requirements of authorized uses in corporation with AGFD and CDFG.

Administrative Actions

- Coordinate with AGFD and CDFG regarding their management objectives for big game species when YFO management actions may affect those objectives (including development of water catchments).
- In cooperation with AGFD and CDFG, identify existing and potential areas where big game mortality from vehicles may be a concern. Implement temporary, seasonal, or permanent area and transportation route closures or reroutes, if necessary, to address big game vulnerability to mortality. Any changes would consider public access needs and the prior existing rights of potentially affected parties. Coordinate any changes with the appropriate Federal, State, county, and Tribal governments, and all potentially affected parties.

C. NON-GAME MIGRATORY BIRDS

Desired Future Conditions

- Ensure that YFO actions promote programs and recommendations of comprehensive migratory bird planning efforts such as Partners-in-Flight, *U.S. National Shorebird Plan*, *North American Waterfowl Management Plan* (2004), *North American Colonial Waterbird Plan*, and other planning efforts, as well as guidance from other sources.
- Support the conservation intent of the conventions of the Migratory Bird Treaty Act by integrating bird conservation principles, measures, and practices into YFO activities and by avoiding or minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting BLM actions.

Management Actions

- Restore and enhance the habitat of migratory birds, as practicable.
- Integrate fire management into upland and riparian habitat restoration actions for non-game bird species.
- Prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable.
- Consolidate areas with high actual or potential value for non-game migratory bird habitat through voluntary land exchange or acquisition.
- Restore degraded habitats (both upland and riparian) to ecological conditions consistent with non-game migratory bird habitat management objectives, emphasizing maintenance and/or enhancement of natural biological diversity.

Administrative Actions

- Prioritize breeding and migratory stopover bird habitat for protection or mitigation.
- Identify major habitat modifications and other threats that may have significant negative effects on the survival of migratory bird species-populations.
- Provide notice to the USFWS in advance of conducting an action that is intended to "take" (see glossary) migratory birds or annually report to the USFWS on the number of individuals of each species of migratory birds intentionally taken during the conduct of any BLM action including but not limited to banding or marking, scientific collecting, taxidermy, and depredation control.
- Identify where unintentional take reasonably attributable to BLM actions is having, or is likely to have, a measurable negative effect on migratory bird populations, focusing first on species of concern, priority habitats, and key risk factors. With respect to those actions so identified, the YFO shall develop and use principles, standards, and practices that would lessen the amount of unintentional take, developing any such conservation efforts in cooperation with the USFWS. These principles, standards, and practices shall be regularly evaluated and revised to ensure that they are effective in lessening the detrimental effect of YFO actions on migratory bird populations. The YFO also shall inventory and monitor bird

habitat and populations within the BLM's capabilities and authorities to the extent feasible to facilitate decisions about the need for and effectiveness of conservation efforts.

- Within the scope of its statutorily designated authorities, control the import, export, and establishment in the wild of live exotic animals and plants that may be harmful to migratory bird resources. Collaborate with AGFD on the control of exotic animals.
- Identify possible mitigation measures through project-specific NEPA analysis. Avoid to the degree practicable, adverse impacts on non-game bird habitats.
- Through public outreach and education, develop a broad awareness and understanding of the importance of non-game bird species and their value to our natural heritage.
- Promote recreational opportunities for bird watching and photography.
- Develop interpretive displays for use at professional meetings, county fairs, and other outreach opportunities.
- Provide training and information to appropriate employees on methods and means of avoiding or minimizing the take of migratory birds and conserving and restoring migratory bird habitat.
- Promote migratory bird conservation in international activities and with other countries and international partners, in consultation with the Department of State, as appropriate or relevant to the BLM's authorities.
- Recognize and promote economic and recreational values of birds, as appropriate.
- Develop partnerships with non-Federal entities to further bird conservation.
- Promote research and information exchange related to the conservation of migratory bird resources, including coordinated inventorying and monitoring, and the collection and assessment of information on environmental contaminants and other physical or biological stressors having potential relevance to migratory bird conservation. Where such information is collected in the course of BLM actions or supported through Federal financial assistance, reasonable efforts shall be made to share such information with the USFWS, the Biological Resources Division of the U.S. Geological Survey, and other appropriate repositories of such data (e.g., the Cornell Laboratory of Ornithology).
- Design migratory bird habitat and population conservation principles, measures, and practices into BLM plans and planning processes (natural resource, land management, and environmental quality planning including but not limited to forest and rangeland planning, coastal management planning, watershed planning, etc.) as practicable, and coordinate with other agencies and non-Federal partners in planning efforts.
- Ensure that environmental analyses of Federal actions required by NEPA or other established environmental review processes evaluate the effects of actions and BLM plans on migratory birds, with emphasis on species of concern.

D. RAPTORS

Management Actions

- Pursue all land acquisition options (i.e., purchase, exchange, donation, and easement from willing land owners) to consolidate important raptor habitats that are located on State or privately owned lands within Key Raptor Areas (i.e. Mittry Lake Wildlife Area and the Colorado River corridor) (USDOI BLM 1992a).
- Plant trees in suitable areas to provide perch sites and enhance foraging habitat for raptors.

Administrative Actions

- Identify important parcels for land tenure adjustments within the Key Raptor Areas. Allocate funding for appraisals, cadastral surveys, and other lands and realty-related actions necessary to process the land acquisition options.
- Ensure that all new power lines are safe for raptors. Inventory power lines to ensure that they meet established standards as described in BLM Manual 2800 and in the *2006 Suggested Practices for Avian Protection on Power Lines* (Avian Power Line Interaction Committee 2006). Inventories of power lines within areas of known high raptor use should be completed first.
- Assess the adverse and beneficial effects of fire and fuels management on raptor habitats and the opportunities for integrating fire as a restorative action for raptor habitat management.
- Participate in cooperative research initiatives with other Federal and State agencies, universities, and non-governmental organizations.
- Identify major habitat modifications and other threats that may have significant negative effects on the survival of raptor species-populations.

E. GAME BIRDS

Management Actions

- Create or maintain habitat for dove and quail at suitable sites such as riparian restoration areas or retired agricultural leases.
- Create a management plan for the Fred J. Weiler Greenbelt through cooperation with the AGFD.

Administrative Actions

- Coordinate with AGFD to provide hunting opportunities for dove and quail.
- Monitor the potential effects of land management and resource use, and other natural or human-caused disturbances on game bird habitat.

2.7.2 WILDLIFE HABITAT MANAGEMENT AREAS

Priority Wildlife Habitats were designated as wildlife-related special interest areas under the 1987 Yuma District RMP, as demonstrated under Alternative A. Five types of WHAs are proposed for the entire planning area and generally vary by acres between alternatives. These management areas are as follows: Colorado and Gila River Riparian, Desert Mountains, Dunes, Palomas Plain, and Wildlife Movement Corridors. These five areas are proposed under Alternatives B, C, D, and the Proposed Plan with the following two exceptions: Dunes is excluded from Alternative B (0 acre), and Palomas Plain is proposed as an ACEC under Alternative D (429,900 acres).

WHA designations are presented by alternative in Table 2-6 below and Maps 2-4a through 2-4e.

Desired Future Conditions Common to All

- Promote healthy terrestrial, aquatic, and riparian ecosystems for biological diversity, ecological integrity and sustainability, and social and cultural needs.
- Reduce fragmentation of land cover by land use to sustain ecosystem composition, structure, functions, and processes.
- Emphasize conservation measures for special status species, priority species, and other at-risk species while balancing the multiple uses of public lands.
- Provide well-distributed habitats and connective corridors for a functional landscape to maintain self-sustaining, complex interacting groups of species or wildlife assemblages.
- Limit additional human-caused disturbance and land-cover changes that may cause adverse effects on native and desired non-native fish and wildlife species habitats.

Table 2-6
Wildlife Habitat Management Areas by Alternative

Wildlife Habitat Management Areas	Alternative (BLM acres)				
	A	B	C	D	E
Priority Wildlife Habitat	539,500*	0	0	0	0
Colorado River and Gila River Riparian	n/a	38,900	38,900	38,900	38,900
Desert Mountains	n/a	664,000	664,000	664,000	664,000
Dunes	n/a	0	59,400	59,400	57,500
Palomas Plain	n/a	704,800	704,800	ACEC	627,700
Wildlife Movement Corridors	n/a	138,100	138,100	138,100	138,100

Note: The total WHA acres are greater than the total YFO administered lands due to overlap between WHA areas.
*1987 Yuma District RMP identified Priority Wildlife Habitat. Acreage includes portions of the Lake Havasu Field Office.

Management Actions Common to All

- When impacts within WHAs are unavoidable, allow no net loss or no net impact to occur so that the ecosystem composition, structure, functions, and processes are maintained.
- Where practicable, additional uses in WHAs would be limited to compatible activities and those actions whose impacts could be mitigated to preserve or enhance wildlife values.

- Limit developments where practicable (i.e., livestock facilities, roads, lands actions, mining and minerals) on WHAs to those that are compatible with wildlife habitat.
- Acquire private and State lands in WHAs from willing landowners through purchase or exchange.
- Transmission class ROWs within WHAs would be confined to designated ROW Corridors whenever practicable.

A. COLORADO AND GILA RIVER RIPARIAN WHA

This proposed WHA includes the riparian areas along the Colorado and Gila rivers. Although riparian areas make up less than three percent of the public lands, they are one of the most productive and important areas, providing for an even greater diversity of wildlife species. In the desert southwest, wildlife use riparian areas disproportionately more than any other type of habitat, and many species are riparian-obligates (i.e., use only riparian habitats). For example, within the planning area, more than 400 species are either directly dependent on riparian areas or use them more than other habitats (USDOI BLM 1987b). Many riparian-obligate wildlife species, as well as many native fish species, are either federally listed or are considered special status species by the Federal government (USFWS and BLM) or State wildlife agencies in Arizona and California. Much of the native riparian habitats on public lands within the planning area have been severely fragmented, degraded, or otherwise substantially altered from a variety of causes, thereby affecting the wildlife populations and species that inhabit them. Large areas of riparian habitats have been invaded by the exotic (invasive) and less desirable salt cedar.

Desired Future Conditions

- Provide suitable habitat for aquatic and riparian species in the lower Colorado and Gila rivers.
- Promote restoration of native fish habitat in the lower Colorado River.
- Enhance desired watershed conditions in the lower Colorado River and Gila River through maintenance of hydrologic integrity, reduction of accelerated soil erosion and sedimentation, and protection of water quality from point- and non-point-source pollutants.
- Maintain riparian-wetland and floodplain areas in proper functioning condition along the lower Colorado River and Gila River corridors.

Management Actions

- Allocate 38,900 acres to Colorado and Gila River Riparian WHA under Alternatives B, C, D, and the Proposed Plan.
- Implement management prescriptions for aquatic and riparian ecosystems described in the LCR MSCP to conserve or recover special status species and at-risk priority species.
- No salable mineral permits would be issued within the Colorado and Gila River Riparian WHA.
- No surface occupancy for oil and gas leases would be applied within the Colorado and Gila River Riparian WHA.

- Implement vegetation management to rehabilitate riparian plant communities dominated by non-native species such as salt cedar.

B. DESERT MOUNTAINS WHA

This proposed WHA includes the overlapping habitat areas of desert bighorn sheep and desert tortoise. The Desert Mountains provide important habitat for desert bighorn sheep, desert tortoise and other wildlife species that could not survive on the arid plains of lower elevations. Mountain ranges provide some of the best remaining bighorn sheep habitat in the southwest, with stable populations in several areas.

Desired Future Conditions

- Maintain well-distributed habitats and connective corridors to support self-sustaining populations of native wildlife species (i.e., desert bighorn sheep, desert tortoise [Sonoran and Mohave populations], CFPO, raptors, and bats).
- Maintain habitat to promote stable or increasing population trends in the Desert Mountains-associated priority species.

Management Actions

- Allocate 664,000 acres to Desert Mountains WHA under Alternatives B, C, D, and the Proposed Plan.
- Limit mineral materials permits within the Desert Mountains WHA, by making appropriate use of the proposed community pits.
- No surface occupancy for oil and gas leases would be applied within the Desert Mountains WHA where AGFD has identified sensitive desert bighorn sheep habitat.
- Confine distribution and transmission-class ROWs within Desert Mountains WHA to designated corridors whenever practical.

Administrative Actions

- Monitor OHV usage to ensure that vehicles are staying on designated routes and within existing camping areas and pull-outs within the WHA.

C. DUNES WHA

This proposed WHA includes four areas of dune habitat. Dunes are a sensitive and unusual habitat in the low deserts and host a variety of plants and wildlife, many of which occur in no other habitat. The principle of managing this WHA would be that the amount of human disruption should decrease in proportion to the significance of the sand dune features, with more intensive use directed to sand dune areas of lesser significance or sensitivity.

Desired Future Conditions

- Maintain sand dune habitats that support native wildlife and plant species that include but are not limited to Cowle's fringe-toed lizard (*Uma notata rufopunctata*), scaly sand plant, flat-tailed horned lizard (FTHL) (*Phrynosoma mcallii*), and sand food (*Pholisma sonorae*).
- Reduce non-native invasive species (e.g., Russian thistle [*Salsola kali*] and Sahara mustard) that threaten dune complexes.

Management Actions

- Allocate the Dunes WHA 57,500 acres under the Proposed Plan and 59,400 acres under Alternatives C and D.
- Dune areas which support sensitive, special status, and/or priority species would not be available for future Open OHV Management Area designations.
- Lands authorizations would avoid to the extent practicable, minimize, or mitigate impacts to dunes with sensitive species.

Administrative Actions

- Identify areas of high ecological sensitivity.

D. PALOMAS PLAIN WHA

The Palomas Plain proposed WHA is the largest unfragmented habitat in southwest Arizona for a myriad of wildlife, including bighorn sheep and mule deer. It contains braided channel floodplains and mixed cacti paloverde communities on rocky slopes and *bajadas*. The large, contiguous, unfragmented habitat is significant to the hunting community. This area is a potential reintroduction area for the endangered Sonoran pronghorn. The Lower Sonoran Field Office proposed an adjacent 265,400-acre area as the Gila Bend Mountains Wildlife Management Area.

Desired Future Conditions

- Promote landscape juxtaposition and connectivity with adjacent planning areas.
- Maintain unfragmented, functional landscapes with well-distributed habitat and connective corridors to support native wildlife populations (including Sonoran pronghorn, mule deer, desert bighorn sheep, desert tortoise, and raptor species).

Management Actions

- Allocate the Palomas Plain WHA 704,800 acres under Alternatives B and C, and 627,700 acres under the Proposed Plan.
- Concentrate developments such as utility facilities in areas already developed or disturbed.

Administrative Actions

- Monitor OHV usage to ensure that vehicles are staying on designated routes and within existing camping areas and pull-outs within the WHA.

- Monitor and evaluate habitat use by native wildlife populations (including mule deer, desert bighorn sheep, desert tortoise, and raptor species).
- In cooperation with AGFD and other agencies, determine the feasibility of reintroduction of Sonoran pronghorn to its historic range.

E. WILDLIFE MOVEMENT CORRIDORS WHA

This proposed WHA includes areas identified by AGFD and the Arizona Wildlife Linkages Group as being used by wildlife to move between habitats. Migration corridors are traditional movement paths between adjacent mountain ranges.

Desired Future Conditions

- Maintain functional habitats through landscape connectivity and reduced habitat fragmentation to support terrestrial wildlife species and provide big game species-related movement corridors between and within mountain ranges.

Management Actions

- Allocate 131,800 acres to Wildlife Movement Corridors WHA under Alternatives B, C, D, and the Proposed Plan.
- Minimize new developments or improvements (i.e., roads, fences, canals, quarries, developed campgrounds) which would impede or inhibit wildlife movement within a corridor to the maximum extent practicable. Where new developments or improvements cannot be avoided within a wildlife movement corridor, appropriate mitigation to provide for wildlife movement must be included.

Administrative Actions

- Coordinate with ADOT to reduce wildlife highway fatalities in problem areas.

2.8 SPECIAL STATUS SPECIES MANAGEMENT

Special status species are fish, wildlife, and plants that require specific conservation measures or management directions due to species-population or species-habitat concerns (special status plants are addressed in the Vegetation Management section of this chapter). Special management measures within BLM-administered lands are necessary to reduce or eliminate potential adverse impacts to species or habitats, particularly measures to reduce the likelihood of adverse effects to species listed under the ESA. Special status species land use planning falls under the following broad categories: (1) Federally Listed Species: Threatened, Endangered, Proposed, or Candidate Species (and Designated or Proposed Critical Habitat); (2) State Listed (Arizona's draft list of Wildlife of Special Concern or California Endangered Species Act) Species; and (3) BLM Sensitive Species. Appendix 2-B contains a list of special status species in the planning area.

YFO shall carry out management for the conservation of State listed plants and animals. State laws protecting these species apply to all BLM programs and actions to the extent that they are consistent with FLPMA (43 USC. 1701 et seq.) and other Federal laws.

The protection provided by the policy for candidate species shall be used as the minimum level of protection for BLM sensitive species.

LUP decisions would be consistent with BLM's mandate to protect and recover species listed under the ESA and would be consistent with objectives and recommended actions in approved recovery plans, conservation agreements and strategies, MOUs, and applicable biological opinions for threatened or endangered species.

In addition to the ESA, the following laws, regulations, and policies direct the management of special status species on BLM-administered public lands: Migratory Bird Treaty Act of 1918, as amended; Bald Eagle Protection of 1940, as amended 1962; Fish and Wildlife Coordination Act of 1958; California Native Plant Protection Act of 1977; California Endangered Species Act of 1984; Arizona Native Plant Law of 1993; EO 12962 - Recreational Fisheries; EO 13186 - Conservation of Migratory Birds; USDOI Manual 520 - *Riparian Habitat*; BLM Manual 6500 - *Wildlife, Fish, and Plant Resources*; BLM Manual 6840 - *Special Status Species*; BLM Manual 1737 - *Riparian; Recovery Plans for 12 Federally Listed Species*; FTHL *Rangewide Management Strategy* (2003; Conservation Agreement signed in 1997); *Management Plan for the Sonoran Desert Population of the Desert Tortoise in Arizona* (1996); Biological Opinion for Small Projects Affecting [Mojave] Desert Tortoise Habitat in California; Biological Opinion on Yuma District LUP 1998 and amendments; LCR MSCP EIS/*Environmental Impact Report* (USDOI Reclamation et al. 2004), Appendix B (dated September 3, 2004); and *Biological and Conference Opinion for the BLM Arizona Statewide LUP Amendment for Fire, Fuels, and Air Quality Management* (File number AESO/SE: 02-21-03-F-0210).

The following Desired Future Conditions, Management Actions, and Administrative Actions for special status species would be applied to the entire planning area.

Desired Future Conditions

- Maintain, enhance, and restore terrestrial and aquatic habitats for the survival and recovery of species listed under the ESA and to help keep proposed or candidate species from becoming listed as endangered or threatened under the ESA. Management actions either contribute to or do not prevent recovery or delisting of species listed under the ESA.
- Achieve applicable species- or habitat-specific goals and objectives addressed in established and approved recovery plans, conservation strategies and agreements, and MOUs (including the LCR MSCP).
- Maintain, enhance, or restore habitat historically or currently supporting special status species and existing habitat capable of supporting special status species in the future. Ecological restoration actions would address long-term threats to special status species and the short-term need to protect special status species and their habitats.
- Ensure no net loss or fragmentation of habitat for major life history requirements (i.e., breeding, feeding, or resting cover) for special status species.

Management Actions

- No activities or projects that would jeopardize the continued existence of special status species would be permitted on BLM-administered lands.
- Avoid or minimize negative behavioral impacts to special status species resulting from human caused disturbances by either prohibiting or constraining human activities during breeding or migratory seasons, on a case-by-case basis.
- Require projects and land-use authorizations to minimize adverse impacts to special status species through mitigation.
- Avoid or minimize the following situations for special status species and associated habitat management on BLM-administered public lands: (1) species becoming endangered in or extirpated from a State, or within a significant portion of its distribution; (2) species undergoing significant current or predicted downward trend in habitat capability that would reduce a species' existing distribution; and (3) species undergoing significant current or predicted downward trend in population or density.
- Minimize or avoid human-caused habitat destruction, degradation, and fragmentation to protect special status species. Habitat modifications from land and resource uses would be at levels that do not threaten the persistence of threatened, endangered, proposed, or candidate species populations.

Administrative Actions

- During site/project-level analysis, identify practices or facilities that would adversely affect special status species or their habitats, and prioritize opportunities to mitigate, through avoidance or minimization, the adverse effects to the species or their habitats.
- Design and implement Management Actions to provide suitable ecological conditions that constitute well-distributed habitats and connective corridors to support reproductive needs and free-flow movements of special status species for population persistence.
- Implement the applicable species-specific conservation measures within rendered biological opinions.
- Cooperate with USFWS, AGFD, and CDFG for management of species listed under the ESA, and with the AGFD and CDFG for species of special concern or State-listed species.
- Enhance scientific knowledge and public awareness on special status species through research, and interpretive and outreach programs.

2.8.1 FEDERALLY LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

A. CALIFORNIA BROWN PELICAN (ENDANGERED)

The planning area does not contain any habitat or populations of the California brown pelican (*Pelecanus occidentalis californicus*). All birds that incidentally occur in the planning area are considered vagrants.

Desired Future Conditions

- None.

Management Actions

- None.

Administrative Actions

- Provide public education, outreach, and interpretive programs.
- Enforce existing State and Federal regulations for protection of listed species.
- Continue to assist USFWS in retrieving weakened, transient California brown pelicans for rehabilitation.

B. GILA TOPMINNOW, BONYTAIL CHUB, AND DESERT PUPFISH (ENDANGERED)

Adopt and implement the *Gila Topminnow Revised Recovery Plan* (USDOI USFWS 1998a), which identifies the following as actions needed: (1) Prevent extinction by protecting remaining natural and long-lived reestablished populations; (2) reestablish and protect populations throughout historic range; (3) monitor natural and reestablished populations and their habitats; (4) develop and implement genetic protocol for managing populations; (5) study life-history, genetics, ecology, and habitat of Gila topminnow and interactions with nonnative aquatic species; and (6) inform and educate the public and resource managers.

The *Bonytail Chub Recovery Goals* (USDOI USFWS 2002a) identifies similar management actions addressed in the Razorback Sucker Recovery Goals (USDOI USFWS 2002c).

Adopt and implement the *Desert Pupfish Recovery Plan* (USDOI USFWS 1993), which identifies the following as actions needed: (1) protect natural populations and their habitats; (2) re-establish populations; (3) establish a refugium population of Quitobaquito pupfish; (4) develop protocol for exchange of genetic material; (5) monitor natural and replicated populations; (6) determine factors affecting population persistence; and (7) provide information and education.

YFO would implement applicable recovery objectives consistent with the recovery plans and any future revisions for these three species.

Desired Future Conditions

- Provide suitable perennial waters capable of supporting self-sustaining populations of Gila topminnow, bonytail chub, and desert pupfish, as appropriate. Protection of populations in currently occupied habitat is the highest priority, followed by reintroduction into suitable habitat within their historic range. Retain sufficient shoreline vegetation to reduce soil erosion and protect spawning habitat along shorelines of perennial waters from excess siltation above natural or background levels.

- In cooperation with the AGFD and the USFWS, reestablish Gila topminnow, bonytail chub, and desert pupfish into currently or potentially suitable habitat areas within the planning area.
- Limit streambank vegetation alteration due to recreation activities and livestock grazing in riparian areas along stream reaches occupied by Gila topminnow, bonytail chub, and desert pupfish.

Management Actions

- Limit domestic livestock utilization of native riparian trees along stream reaches occupied by Gila topminnow, bonytail chub, and desert pupfish to 30 percent of the apical stems per growing season.
- Limit fuel treatments in watersheds with occupied reaches or sites of Gila topminnow, bonytail chub, and desert pupfish to no more than ½ of the watershed area in any two-year period.

Administrative Actions

- None.

C. MOJAVE DESERT TORTOISE (THREATENED)

Adopt and implement the recovery strategy addressed in the *Desert Tortoise (Mojave Population) Recovery Plan* (USDOI USFWS 1994). The overall recovery objective is to provide habitat capable of maintaining stable or increasing trends in abundance and survivorship of Mojave desert tortoise (*Gopherus agassizii [xerobates]*) in all recovery units in the Mojave region. The planning area partially overlaps with the Eastern Colorado recovery units in southeastern California (USDOI BLM 2002b). Recovery goals, objective, strategy, and delisting criteria are described in the recovery plan.

Desired Future Conditions

- Ensure no net loss in the quality or quantity of Category I and II desert tortoise habitats to the extent practicable.
- When possible, prohibit activities that would fragment or further isolate existing populations of desert tortoises (i.e., canals, highways).
- Reduce take of desert tortoises through the removal of these animals to undisturbed areas out of harm's way.
- Ensure that wild horse and burro abundance is in ecological balance with existing desert tortoise and other wildlife populations.
- Reduce the attraction of predators, such as the common raven, to project areas to the maximum extent possible.
- Establish the goals and criteria for three categories of desert tortoise habitat areas. These categories are:

- Category I. Maintain stable, viable populations, retain natural shelter sites, protect existing tortoise habitat values, and increase populations where possible;
- Category II. Maintain stable, viable populations, retain natural shelter sites, and halt further declines in tortoise habitat values; and
- Category III. Limit tortoise habitat and population declines to the extent possible through mitigation.

Management Actions

The following management actions would apply to all Mojave Desert tortoise habitat within the planning area.

- Review land use requests during the March 1 through October 15 critical period on a case-by-case basis. Requests may be denied and/or mitigated to achieve Desired Future Conditions (for example, no net loss of Category I and II habitat).
- Compensate for loss of desert tortoise habitat in accordance with the *Arizona Interagency Desert Tortoise Team Management Plan* (1996).
- Reduce take of desert tortoises, by injury or death due to the straying of construction and maintenance equipment beyond project areas through establishment of clearly defined work areas.
- Modify activities to avoid injury or harm if a tortoise is found in a project area.
- Confine the period of leasable mineral exploration and major construction work from November 1 to March 1. Minimize surface disturbance associated with authorized activities. Perform complete preconstruction inspections of areas to be developed and mitigate for actions to protect desert tortoises and their habitat, including reclamation and bonding, if appropriate. After project completion, measures would be taken to facilitate restoration of the disturbed site.
- Fence new paved roads and highways or major modifications of existing roads through desert tortoise habitat with tortoise barrier fencing. Culverts, to allow safe passage of tortoises, shall be constructed approximately every mile of new paved roads and railroads. Require erection of tortoise barriers around projects that would be sources of mortality (such as canals, heavily used roads, steep-walled reservoirs), and promote methods that allow safe movement across project areas.
- Minimize blading of new access or work areas. Disturbance to shrub cover would be avoided if possible. If shrubs cannot be avoided during equipment operation or vehicle use, they should be crushed wherever possible rather than excavated or bladed and removed.
- Cover or modify project features that might trap or entangle desert tortoises, such as open trenches, pits, pipes, and others, to prevent entrapment during the active season or when an on-site biologist is not available. After completion, these features would be filled in, covered, or otherwise modified so they are no longer a hazard to desert tortoises.
- All BLM-authorized surface-disturbing projects would be located in previously disturbed areas or outside of Mohave desert tortoise habitat. When at all possible, avoid habitat, otherwise mitigate. If a desert tortoise is found in a project area, activities should be modified to avoid injuring or harming it.

- Enclose an entire site with a tortoise-proof fence where project activities are to extend over 90 days in desert tortoise habitat. For project activities that are to occur in fewer than 90 days, a temporary fence would be erected around the area of activity.
- Limit vehicular travel and non-motorized competitive events to designated routes.
- Close and rehabilitate existing roads where no public or administrative need exists.
- Limit seismic exploration, new construction, road maintenance, vehicle use, or other BLM-authorized surface-disturbing activities to existing ROW Corridor areas.

Administrative Actions

- Implement worker education programs and well-defined operational procedures to avoid the "take" of desert tortoises and their habitat.
- Ensure that wild horse and burro abundance is in ecological balance with existing desert tortoise and other wildlife populations.

D. RAZORBACK SUCKER (ENDANGERED)

Adopt and implement the *Razorback Sucker Recovery Goals* (USDOI USFWS 2002b) of the *Razorback Sucker Recovery Plan* (USDOI USFWS 1998b). Actions identified to achieve the recovery objective (downlisting or delisting), include (1) reestablishing populations with hatchery-produced fish; (2) providing and legally protecting habitat (including flow regimes necessary to restore and maintain required environmental conditions) necessary to provide adequate habitat and sufficient range for all life stages to support recovered populations; (3) providing passage over barriers within occupied habitat to allow unimpeded movement and, potentially, range expansion; (4) minimizing entrainment of subadults and adults at diversion/out-take structures; (5) ensuring adequate protection from overutilization; (6) ensuring adequate protection from diseases and parasites; (7) regulating nonnative fish releases and escapement into the main river, floodplain, and tributaries; (8) controlling problematic non-native fishes as needed; (9) minimizing the risk of hazardous-material spills in critical habitat; (10) remediating water-quality problems; and (11) providing for the long-term management and protection of populations and their habitat beyond delisting (i.e., conservation plans).

The planning area is within the lower Colorado River Basin recovery unit. Recovery goals, including site-specific management actions and tasks by recovery factors, for the recovery unit are addressed in the *Razorback Sucker Recovery Goals* (USDOI USFWS 2002b).

Desired Future Conditions

- Minimize known threats to razorback sucker, which include habitat modification, competition with and predation by non-native fish species, and pesticides and pollutants.
- Support efforts to control non-native fishes, where feasible, to minimize the threat of hybridization or negative interactions between non-native fishes and razorback sucker with proper coordination with and authorization from AGFD and CDFG.
- Protect critical habitat from further degradation in habitat conditions and water quality, and restore habitats to meet established recovery goals for razorback sucker.

Management Actions

- Develop, enhance, and maintain suitable habitats (riverine habitats including oxbows, depressions, and bottomlands) required for all life stages for self-sustaining populations in all recovery units.

Administrative Actions

- Evaluate razorback sucker habitat on BLM-administered lands and develop a strategy to eliminate or reduce adverse effects from BLM-authorized development to the habitat along shorelines.
- Enhance public awareness through educational programs and posting of informational bulletins of the importance of razorback sucker and potential threat to the species and habitat from recreation use and developments in the floodplain along the Colorado River.
- Post signs at fishing access points and at tackle shops clearly advising anglers of the potential to take razorback suckers and how to report and release captured fish. Signs should contain a clear photograph of a razorback sucker that can be used by anglers to identify the species.

E. SONORAN PRONGHORN (ENDANGERED)

Adopt and implement the recovery strategy addressed in the *Final Revised Sonoran Pronghorn Recovery Plan* (USDOI USFWS 1998c) and *Recovery Criteria and Estimates of Time for Recovery Actions for the Sonoran Pronghorn* (USDOI USFWS 2002c). The recovery criteria for the Sonoran pronghorn is to establish an estimated population of 300 adults in one self-sustaining population in the U.S. for a minimum of 5 years and establish at least one other self-sustaining population in the U.S. Criteria for downlisting the subspecies to threatened status include the maintenance of a stable population for a minimum of 5 years and protection and securing of the necessary habitat.

Desired Future Conditions

- Provide unfragmented habitat capable of contributing to the potential reintroduction of Sonoran pronghorn in the planning area as a step toward recovery of the species within the historic range.
- Manage for maximum plant species richness. Prescribed fire and livestock herd management could be utilized to improve plant species richness.
- Manage pronghorn habitat to minimize shrub and tree encroachment following evaluation of potential reintroduction sites in accordance with the recovery plan.

Management Actions

- Use prescribed fire, chemical, and mechanical treatments to reduce shrub and tree components. Prescribed fire can be used to supplement natural grassland renewal, especially to increase forbs and reduce shrubs.
- Design livestock fences or modify existing fences to facilitate pronghorn movement. Traditional livestock fencing can impede or prevent pronghorn movement and create habitat

fragmentation. Habitat fragmentation can result in genetic isolation, herd extirpation, and periodic winter kills.

Administrative Actions

- Support the Sonoran Pronghorn Recovery Team's efforts to transplant or reintroduce species to BLM-administered lands.
- Investigate, evaluate, and prioritize potential future reintroduction sites within the historic range.
- Map native vegetation in potential reintroduction areas.

F. SOUTHWESTERN WILLOW FLYCATCHER (ENDANGERED)

The overall recovery objective for the southwestern willow flycatcher (SWFL; *Empidonax traillii extimus*) identified in the *Southwestern Willow Flycatcher Final Recovery Plan* (USDOI USFWS 2002d) is to attain a population level and an amount and distribution of habitat sufficient to provide for the long-term persistence of metapopulations, even in the face of local losses (e.g., extirpation). YFO would implement applicable recovery objectives consistent with the recovery plan and any future revisions.

The planning area is within the Lower Colorado and Gila Recovery Units, as identified in the recovery plan. Specific river reaches within the planning area where recovery efforts should be focused are identified in the recovery plan. Substantial recovery value exists in areas of currently or potentially suitable habitat.

Desired Future Conditions

- Provide suitable habitat capable of maintaining stable or increasing population trends of SWFL in the Lower Colorado Recovery Unit within the planning area.
- Develop new riparian habitat and restore damaged or degraded areas along the lower Colorado River and Gila River for the survival and recovery of SWFL.
- Minimize activities that would promote or encourage attractants of scavengers, predators, and brown-headed cowbirds to protect existing populations of SWFL (for example, livestock grazing, bird feeders, forest thinning).
- Minimize recreation activities where potentially suitable SWFL habitat has been identified to allow the area to recover vegetative features needed by the species.
- Protect existing SWFL habitats by reducing fire risk to habitat.

Management Actions

- Use fencing or physical barriers to protect riparian habitat from unauthorized OHV use.
- Avoid hazardous fuel thinning projects that reduce the quality or quantity of SWFL habitat and instead install fire breaks to protect habitat from wildfires.

- Through interagency coordination with AGFD, initiate cowbird control to protect a particular SWFL population only after sufficient baseline data show cowbird parasitism to be a significant threat to that population.

Administrative Actions

- Acquire suitable habitat and protect known occupied sites through land acquisition and easements from willing landowners to compensate for loss of historical SWFL habitat.
- Reduce potential impacts from recreation activities by promoting public outreach and education.

G. YUMA CLAPPER RAIL (ENDANGERED)

The overall recovery objective for the Yuma clapper rail (*Rallus longirostris yumanensis*) identified in the *Yuma Clapper Rail Recovery Plan* (USDOI USFWS 1983) is to protect sufficient habitat in the U.S. and Mexico with sufficient breeding and wintering habitat capable of supporting a population of 700-1,000 breeding birds in the U.S. YFO would implement applicable recovery objectives consistent with the recovery plan and any future revisions.

Desired Future Conditions

- Ensure no net loss or fragmentation of marshlike habitat for major life history requirements (i.e., breeding, feeding or resting cover) of Yuma clapper rail and maintain natural bird behavior by minimizing indirect effects resulting from human-caused disturbances.
- Maintain riparian areas that form an integrated mosaic with wet sloughs and marshes designed to support the Yuma clapper rail and other marsh and aquatic wildlife.

Management Actions

- Burn decadent marsh vegetation without risking the rarer and more valuable cottonwood-willow habitat, if research concludes that burning decadent marsh vegetation benefits Yuma clapper rail population.
- Restrict or prohibit human caused disturbances to habitat or individuals in occupied territories during the breeding and molting seasons (March 15–September 1).

Administrative Actions

- Support research to study the biological requirements of Yuma clapper rail.
- Complete survey and monitoring of Yuma clapper rail populations and breeding areas on BLM-administered lands.
- Initiate public outreach with education and interpretive programs to promote species–habitat recovery.

2.8.2 FEDERAL CANDIDATE SPECIES

YELLOW-BILLED CUCKOO

The yellow-billed cuckoo (*Coccyzus americanus*) is a candidate for listing under the ESA. Candidate species are those species for which USFWS has sufficient information on biological vulnerability and threats to support proposals to list them as endangered or threatened under the ESA. However, proposed rules have not yet been issued, because such actions are precluded at present by other listing activity. No recovery plans or objectives have been developed for this species. All projects and activities occurring on public lands within the planning area would be evaluated to ensure that they would not contribute to the need to list the yellow-billed cuckoo as threatened or endangered under the ESA. YFO would ensure the conservation of yellow-billed cuckoo habitats and the ecosystems of which they are components as a means to conserve or improve the status of the species in the wild and reduce the need to list the species as endangered or threatened.

Desired Future Conditions

- Maintain connective riparian corridors within and between known yellow-billed cuckoo breeding areas along the lower Colorado River and Gila River.
- Reduce or eliminate recreational use-related impacts and other disturbance factors to nursery beds during and after seedling establishment.
- Protect currently unprotected occupied or potential yellow-billed cuckoo habitat through acquisition, easements, partnerships, and other means.
- Manage for no net loss or fragmentation of breeding and migratory habitats, and maintain natural bird behavior by minimizing indirect effects resulting from human-caused disturbances.

Management Actions

- Develop new riparian habitat and restore damaged or degraded areas along the lower Colorado River and Gila River for the protection of yellow-billed cuckoo and other riparian or floodplain associated species. Restore reaches of riparian habitat by encouraging private/public partnerships for fencing and habitat restoration through Federal, State, and non-government programs.
- Promote regeneration of native vegetation in riparian areas by minimizing impacts from land/resource uses such as livestock grazing, water diversion, inundation, wood cutting, and OHV travel.
- Manage for large, contiguous blocks of native riparian habitat (>30 acres) in conjunction with removal of competing exotic species (such as salt cedar).

Administrative Actions

- Collaborate with Federal and State agencies, and private organizations conducting research, survey, and monitoring of yellow-billed cuckoo to develop regionwide conservation strategies.
- Monitor and evaluate livestock grazing impacts on cottonwood and willow seedlings in riparian areas and reduce or remove grazing pressure when vegetative regeneration is being negatively impacted.
- Survey and monitor riparian vegetation areas that are currently regenerating to determine occupancy by yellow-billed cuckoo.

2.8.3 STATE-LISTED SPECIES

YFO shall carry out management for the conservation of plants and animals listed by California and Arizona. State laws protecting these species apply to all BLM programs and actions to the extent that they are consistent with FLPMA (43 U.S.C. 1701 et seq.) and other Federal laws. YFO would develop policies that would assist California and Arizona in achieving their management objectives for State-listed species. It is BLM policy to manage for the conservation of State-listed species and their associated habitats and to ensure that actions authorized, funded, or carried out do not contribute to the need to list these species as threatened or endangered.

The species listed in this section are those with specific management guidelines applicable to the planning area.

A. BALD EAGLE

Adopt and implement the recovery objectives addressed in the *Bald Eagle (Southwestern Population) Recovery Plan* (USDOI USFWS 1982). The recovery plan includes the following guidelines: (1) Maintain and protect the existing nest territories; (2) enhance nest territories to increase the production of young above the present average of 1.02 fledglings per active nest; (3) continue using a production index and annual monitoring program to determine whether the population is increasing, decreasing, or stable; (4) identify, maintain, and improve wintering habitat; and (5) promote research that would lead to increased eagle survival.

Desired Future Conditions

- Protect riparian areas capable of providing special habitat components for nesting and wintering birds along the lower Colorado River and Gila River.
- Protect, maintain, or enhance the existing known occupied sites for bald eagles.

Management Actions

- None

Administrative Actions

- Monitor land use/cover changes within currently occupied and potential bald eagle habitats and evaluate bald eagle responses to changed site conditions and disturbance factors.
- Locate, map, and evaluate non-nesting habitats by the transient bald eagle population.
- Enhance public outreach designed to gain support for the protection of bald eagles.

B. BURROWING OWL

Adopt and implement conservation strategies outlined by the AGFD and CDFG for this species. Overall, the conservation objective is to provide habitat capable of maintaining stable or increasing trends in abundance of burrowing owls.

Desired Future Conditions

- Maintain suitable habitats of sufficient quality and quantity with adequate patch sizes that could support burrowing owls.
- Conserve burrowing animals, which are essential to creating nest sites for burrowing owls.
- Maintain large, contiguous areas of treeless, native grasslands.

Management Actions

- Place artificial nest boxes no closer apart than 360 feet. Artificial burrows should not be placed 165 to 330 feet from the original burrow.
- Reintroduce burrowing owls in areas that have approximately 55 percent (40–70 percent) bare ground and average shrub cover of <15 percent.
- Restrict lethal burrowing mammal control when burrowing owls are not nesting or not choosing nest sites.
- Prohibit the use of traps, poisoned meat, or poisoned grain for rodent control. Rather, burrows unoccupied by owls should be fumigated.
- Pesticide should not be sprayed within 1,300–2,000 feet of burrowing owl nest sites during the breeding season.

Administrative Actions

- Educate private landowners and the general public about the status of burrowing owls, including how domestic cats have a negative impact on burrowing owl abundance.

C. CACTUS FERRUGINOUS PYGMY-OWL

Overall, the conservation objective is to provide habitat capable of maintaining stable or increasing trends in abundance of CFPOs in all management areas within the Sonoran Region.

Desired Future Conditions

- Protect all currently known CFPOs and the integrity of their territories, including adequate dispersal habitat. Identify and maintain an interconnected system of habitat patches extending from the northern portion of their historical range south to areas in Mexico. Reduce or eliminate the threats or limiting factors to the persistence of CFPOs.
- Provide well-distributed habitat capable of contributing to the survival and recovery of self-sustaining populations of CFPO. Habitat management for CFPO would consider the following features: (1) amount, quality, and distribution of habitat patches; (2) juxtaposition and connectivity to dispersal habitat; and (3) influence of disturbance-related habitat degradation.
- Manage key elements of CFPO habitat that include the following features
  - Elevations below 4,000 feet within the biotic communities of Sonoran riparian deciduous woodlands; Sonoran riparian scrubland; mesquite *bosques*; xeroriparian communities; tree-lined drainages in semidesert, Sonoran savanna, and mesquite grasslands; and the Arizona Upland and lower Colorado River subdivisions of Sonoran desertscrub.
  - Nesting cavities located in trees including but not limited to cottonwood, willow, velvet ash (*Fraxinus velutina*), mesquite, paloverde, ironwood, and hackberry (*Celtis* spp.) with a trunk diameter of six inches or greater measured five feet from the ground, or large columnar cactus such as saguaro or organ pipe cacti (*Stenocereus thurberi*) greater than eight feet.
  - Multilayered vegetation (presence of canopy, midstory, and ground cover) provided by trees and cacti in association with shrubs such as acacia, prickly pear, desert hackberry (*C. pallida*), graythorn (*Ziziphus obtusifolia*) and ground cover such as triangle-leaf bursage (*Ambrosia deltoidea*), burroweed (*Isocoma tenuisecta*), grasses, or annual plants.
  - Vegetation providing mid-story and canopy-level cover (this is provided primarily by trees greater than seven feet in height) in a configuration and density compatible with CFPO flight and dispersal behaviors. Within 49.21-foot-radius plots centered on nests and perch sites, AGFD has documented the mean number of trees and average height of trees per plot in Sonoran desertscrub and semidesert grassland areas. The mean number of trees per plot in Sonoran desertscrub was 12.5 with a mean height of 12.96 feet. The mean number of trees in semidesert grassland was 28.5 with a mean height of 26.57 feet.
  - Habitat elements configured and human activity levels minimized so that unimpeded use, based on CFPO behavioral patterns (typical flight distances, activity level tolerance, etc.) can occur during dispersal and within home ranges (the total area used on an annual basis).

Management Actions

- During prescribed fires, protect mesquite and other trees and shrubs along riparian and xeroriparian areas and all saguaros to provide potentially suitable habitat for CFPOs.
- Consider restrictions on special use permits and special closure stipulations for public access, where appropriate. Activities such as intensive or frequent discharge of firearms (e.g., target practicing) should be restricted within 0.25 mile of active CFPO territories during critical periods of the breeding season (February 1–July 31).

- Restrict permitted recreational activities which concentrate large numbers of people or vehicles (e.g., hike-a-thon, motor cross rally, four-wheel-drive or OHV rally, cross-country races, mountain bike races) within 0.25 mile of active CFPO territories during critical periods of the breeding season.
- Restrict or redirect activities which concentrate cattle or create other disturbances near active CFPO territories (site occupancy determined on an annual basis through surveys and monitoring) during the breeding season, if such activities show evidence as being detrimental to CFPOs.

Administrative Actions

- Protect all currently known (since 1993) CFPOs and the integrity of the territories, including adequate dispersal habitat. Identify and maintain an interconnected system of habitat patches contributing to reproduction and dispersal of CFPOs.
- Support research to study the life history and habitat requirements of CFPO.
- Complete survey and monitoring of CFPOs to understand population demographics, dispersal movement and habitats, and genetic diversity and isolation.
- Use existing vegetation and soils maps, coupled with verification on the ground, to identify habitat areas potentially suitable for the CFPO. Once potential suitability has been identified, these areas should be systematically surveyed (using a multi-year survey approach) to determine occupancy by CFPOs.
- Initiate a process for augmenting existing imperiled CFPO population segments and establishing CFPOs in areas that appear suitable, but are presently unoccupied, or into areas that have been modified by enhancing some habitat characteristics for CFPOs.
- Provide public education and outreach to increase public awareness on the importance of survival and recovery of CFPOs.

D. FLAT-TAILED HORNED LIZARD

Adopt and implement the conservation strategies described in the revised FTHL *Rangewide Management Strategy* (FTHL Interagency Coordinating Committee 2003), whose objectives included the following: (1) conserve sufficient habitat to maintain viable populations of FTHLs in five management areas; (2) maintain a long-term stable or increasing population trend in all management areas; (3) maintain a research area; (4) encourage the protection of FTHL through strong conservation management; (5) outside of FTHL management areas, limit the loss of habitat and effects on populations of FTHL through the application of effective mitigation and compensation; and (6) encourage adoption of a FTHL conservation program in Mexico. YFO would implement applicable objectives consistent with the management strategy and any future revisions.

Desired Future Conditions

- Maintain self-sustaining populations of FTHL in perpetuity. Minimize loss or degradation of FTHL habitat and maintain or establish effective habitat corridors between naturally adjacent populations.

Management Actions

- Using compensation or other funds, acquire currently unprotected or potential FTHL habitat within management areas in accordance with established priorities and/or criteria. Participate in land exchanges where opportunities arise to acquire key habitat within management areas.
- Limit the loss of habitat and effects on FTHL populations through the application of effective mitigation and compensation.

Administrative Actions

- Promote the purposes of the FTHL conservation strategy through law enforcement and public education.
- Encourage and support research that would promote the conservation of FTHLs or desert ecosystems.
- Conduct inventory and monitoring of FTHL populations and habitats.
- Seek funding to acquire key land parcels to protect FTHL and suitable habitat in the management areas.

E. SONORAN DESERT TORTOISE

Overall, the conservation objective for the Sonoran desert tortoise is to provide habitat capable of maintaining stable or increasing trends in abundance of desert tortoise in all management areas within the Sonoran Region.

Desired Future Conditions

- Category I and II desert tortoise habitat would retain all natural shelter sites (boulders, caliche caves, or similar features used by tortoises for sheltering), and maintain the land in an unfragmented state.
- Habitat would consist of at least five percent native perennial grasses, at least 10 percent native perennial forbs or subshrubs, at least 30 percent native shrubs, and at least 30 percent native trees and cacti, by dry weight, as limited by the capability of the ecological site.
- No net loss in quantity or quality of Category I and II desert tortoise habitat would occur (Table 2-7).

Table 2-7
Goals and Criteria for Categories I, II, and III of Desert Tortoise Habitat Areas

Item	Category I Habitat Areas	Category II Habitat Areas	Category III Habitat Areas
Category Goals	Maintain stable, viable populations and protect existing tortoise habitat values; increase populations, where possible.	Maintain stable, viable populations and halt further declines in tortoise habitat values.	Limit tortoise habitat and population declines to the extent possible by mitigating impacts.
Criterion 1	Habitat area essential to maintenance of large, viable populations.	Habitat area may be essential to maintenance of viable populations.	Habitat area not essential to maintenance of viable populations.
Criterion 2	Conflicts resolvable.	Most conflicts resolvable.	Most conflicts not resolvable.
Criterion 3	Medium to high density or low density contiguous with medium or high density.	Medium to high density or low density contiguous with medium or high density.	Low to medium density not contiguous with medium or high density.
Criterion 4	Increasing, stable, or decreasing populations.	Stable or decreasing populations.	Stable or decreasing populations.

Management Actions

- Adopt and implement the conservation strategy addressed in the *Management Plan for the Sonoran Population of the Desert Tortoise in Arizona* (Arizona Interagency Desert Tortoise Team 1996).
- Limit the loss of suitable habitat and effects on desert tortoise populations through the application of effective mitigation and compensation.
- Compensate for residual project impacts in accordance with the *Compensation for the Desert Tortoise Report* (Desert Tortoise Compensation Team 1991). Compensation for loss of desert tortoise habitat is required according to BLM policy.
- Assess all mining plans of operations for potential impacts to desert tortoise habitat on a case-by-case basis. Adverse impacts to desert tortoise would be mitigated to the extent allowable in BLM 3809 regulations.
- If adverse impacts to habitat cannot be mitigated on site, compensation in the form of land or moneys deposited to a fund for the purpose of acquiring desert tortoise habitat would be pursued.
- Authorize no salable mineral material permits in Category I and II desert tortoise habitat.
- Locate new livestock waters at least two miles from Category I and II desert tortoise habitat.
- Exclude range improvement projects, including water developments, which would create conflicts with desert tortoise populations.
- Manage rangelands to increase distribution and density of native perennial grasses. Stock cattle only under the following criteria: 280 pounds/acre (dry weight) of succulent ephemeral forage present, consumption of forage never to result in reduction of the biomass of spring annuals to levels below 54 pounds/acre, and cattle densities not to exceed those traditionally specified to protect winter forage species for domestic grazers.

- Defer grazing (or rest pastures) from spring, which is concurrent with desert tortoise emergence, through October, to include peak desert tortoise activity (August–October) and emergence of young. Allow winter-spring ephemeral grazing only, if sufficient soil moisture is present, to produce and maintain a standing crop of forage plants adequate to support the number of livestock to be turned out as well as provide for other resource values (e.g., ground cover, wildlife forage, seed source) for the entire grazing period. After a fire exclude livestock grazing at least for one growing season.
- Prohibit feeding of roughage, such as hay, hay cubes, or grain, to livestock as a means to supplement forage quantity.
- Retain desert tortoise habitat in public ownership, unless land disposal through an exchange provides greater benefits to desert tortoises.

Administrative Actions

- Update Sonoran desert tortoise categorization maps (Category I, II, and III habitat areas) based on new inventory information that meets the criteria in Table 2-7.
- Adopt and implement to the extent practicable actions from the pending State of Arizona conservation agreement for the Sonoran desert tortoise.
- Monitor and evaluate vegetation use by large ungulates and trends in site conditions in designated desert tortoise habitats.
- Enhance public awareness of desert tortoise habitat management and species conservation through educational and interpretive programs.
- Support research and interagency collaboration that would promote the conservation of desert tortoise or desert ecosystems.

2.9 LIVESTOCK GRAZING MANAGEMENT

BLM's objectives for rangeland management are to carry out the intent of the Taylor Grazing Act, as amended and supplemented, FLPMA of 1976, and the Public Rangelands Improvement Act of 1978. The objectives are (1) to maintain on a continuing basis an inventory of all public lands and their resources, and their present and future use projected through land use planning processes; (2) to manage public lands on the basis of multiple use and sustained yield; (3) to manage public lands in a manner that would protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; (4) where appropriate, to preserve and protect certain public lands in their natural condition; (5) to provide food and habitat for fish and wildlife and domestic animals; (6) to provide for outdoor recreation and human occupancy and use; and (7) to manage, maintain, and improve the condition of the public rangelands so that they become as productive as feasible for all rangeland values in accordance with management objectives and the land use planning process.

The CFR allows for implementation of the various laws listed above as they relate to livestock grazing on public lands. The regulations in 43 CFR 4100 address grazing administration. These

regulations require, among other things, the implementation of *Standards and Guidelines* for grazing administration to achieve fundamentals of rangeland health.

The Taylor Grazing Act provides for two types of authorized use: (1) a Grazing Permit, which is a document authorizing the use of the public lands within an established grazing district; and (2) a Grazing Lease, which is a document authorizing the use of the public lands outside an established grazing district. Grazing district means the specific area within which the public lands are administered in accordance with Section 3 of the Taylor Grazing Act; Public lands outside grazing district boundaries are administered in accordance with Section 15 of the Taylor Grazing Act.

A permit or lease would include:

1. The number and kind of livestock;
2. The period(s) of use;
3. The allotment(s) to be used; and
4. The amount of use, in Animal Unit Months (AUMs).

The Special Ephemeral Rule, published December 7, 1968 (Appendix 2-D) allows a variance to the mandatory stipulations above. The permit or lease does not specify number and kind of livestock, period of use, or the amount of use in AUMs. The rule establishes that on applicable grazing lands, livestock grazing is feasible when certain climatic conditions create favorable conditions for grazing, primarily on annual vegetation. When these conditions occur, and the permittee or lessee applies for grazing use, the YFO determines the amount and period of authorized use. Such use is authorized when forage is available and there is a high probability that the forage would continue to be available through the period applied for and authorized.

The regulations at 43 CFR 4100 require that permits and leases include terms and conditions that ensure conformance with either the fall-back standards or those approved for the area within which the allotment is located. The Arizona Standards for Rangeland Health and Guidelines for Grazing Administration apply to all allotments within the planning area. No grazing is authorized within riparian and wetland areas.

Other terms and conditions may be specified in grazing permits or leases, which would assist in achieving management objectives, provide for proper range management, or assist in the orderly administration of the public rangelands. These terms and conditions, which are not all inclusive, are contained at 43 CFR 4130.3.

Terms and conditions for grazing permits and leases must be in conformance with resource and management objectives and program constraints, as identified in land use plans.

BLM–administered lands available for livestock grazing are presented in Table 2-8 and Map 2-5a (Alternative A), Map 2-5b (Alternative B), and Map 2-5c (Alternative C and the Proposed Plan).

Table 2-8
Livestock Grazing Availability by Alternative

Available/Unavailable for Livestock Grazing	Alternative (BLM acres)				
	A	B	C	D	E
Available YFO	1,005,600	680,900	428,300	0	428,300
Available LHFO	215,200*	215,200*	215,200*	0	215,200*
Unavailable	309,500	637,100	889,700	1,533,200	889,700
Total Acres*	Total YFO and managed portions of LHFO = 1,533,200 acres				

BLM = Bureau of Land Management; YFO = Yuma Field Office; LHFO = Lake Havasu Field Office
*215,200 acres available in LHFO, managed by YFO. LHFO acres are only calculated for areas available.

BLM allotments in Arizona are classified as Perennial, Ephemeral, or Perennial-Ephemeral. These classifications correspond to the following types of designated rangelands:

- **Perennial.** Rangeland which consistently produces perennial forage to support a year-round livestock operation;
- **Ephemeral.** Rangelands that do not consistently produce enough forage to sustain a year-round livestock operation, but may briefly produce unusual volumes of forage to accommodate livestock grazing. There is a Special Rule for Ephemeral Ranges; and
- **Perennial-Ephemeral.** Rangeland which produces perennial forage each year and also periodically provides additional ephemeral vegetation. In a year of abundant moisture and favorable climatic conditions, annual forbs and grasses add materially to the total grazing capacity.

The number of acres proposed available or unavailable for livestock grazing can be found within Alternative A through the Proposed Plan and primarily differ by the number of acres. The entire planning area is proposed unavailable under Alternative D.

Desired Future Conditions

- Provide forage on a sustained yield basis for livestock consistent with meeting Land Health Standards and multiple use objectives.
- Conduct livestock use and associated management practices in a manner consistent with other multiple-use needs and objectives to ensure that the health of rangeland resources is preserved or improved so that they are productive for all rangeland values. Where needed, improve public rangeland ecosystems to meet objectives.
- Maintain or improve healthy, sustainable rangeland ecosystems to meet *Land Health Standards* (USDOI BLM 1997a) and produce a wide range of public values such as wildlife habitat, livestock forage, recreation opportunities, clean water, and functional watersheds.

Management Actions

- Continue existing grazing allotments and acreage under Alternative A.

- Remove four inactive livestock grazing allotments from availability encompassing 324,700 acres under Alternative B.
- Remove 12 inactive livestock grazing allotments from availability encompassing 577,300 acres under Alternative C and the Proposed Plan.
- Remove all livestock grazing allotments under Alternative D, making 1,533,200 acres unavailable for grazing.
- Authorize and maintain range improvement projects in accordance with grazing regulations and policies.
- Continue to use the allotment management categorization process to define the level of management needed to properly administer livestock grazing according to management needs, resource conflicts, potential for improvement, and BLM funding/staffing constraints. The allotment categories are:
  - Custodial (C), custodial management to protect resource conditions and values,
  - Maintain (M), management to maintain current satisfactory resource conditions and active management to ensure that the conditions of resource values do not decline, and
  - Improve (I), active management to improve unsatisfactory resource conditions.
- Change the category of grazing allotments as objectives are accomplished and/or conditions change. Chapter 3, Livestock Grazing, lists current specific allotment category assignments, grazing systems, preference, and such.
- Guidelines for grazing administration, as approved in the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration, apply to all livestock grazing activities.

2.9.1 ARIZONA GUIDELINES FOR GRAZING ADMINISTRATION

The Arizona Guidelines for Grazing Administration are a series of management practices used to ensure that grazing activities meet the Land Health Standards.

Guidelines for Standard 1

1-1. Management activities will maintain or promote ground cover that will provide for infiltration, permeability, soil moisture storage, and soil stability appropriate for the ecological sites. The ground cover should maintain soil organisms and plants and animals to support the hydrologic and nutrient cycles, and energy flow. Ground cover and signs of erosion are surrogate measures for hydrologic and nutrient cycles and energy flow.

1-2. When grazing practices alone are not likely to restore areas of low infiltration or permeability, land management treatments may be designed and implemented to attain improvement.

Guidelines for Standard 2

2-1. Management practices maintain or promote sufficient vegetation to maintain, improve or restore riparian-wetland functions of energy dissipation, sediment capture, groundwater recharge and stream bank stability, thus promoting stream channel morphology (e.g., gradient, width/depth ratio, channel roughness and sinuosity) and functions appropriate to climate and landform.

2-2. New facilities are located away from riparian-wetland areas if they conflict with achieving or maintaining riparian-wetland function. Existing facilities are used in a way that does not conflict with riparian-wetland functions or are relocated or modified when incompatible with riparian-wetland functions.

2-3. The development of springs and seeps or other projects affecting water and associated resources shall be designed to protect ecological functions and processes.

Guidelines for Standard 3

3-1. The use and perpetuation of native species will be emphasized. However, when restoring or rehabilitating disturbed or degraded rangelands, non-intrusive, non-native plant species are appropriate for use where native species (a) are not available, (b) are not economically feasible, (c) cannot achieve ecological objectives as well as non-native species, and/or (d) cannot compete with already established non-native species.

3-2. Conservation of Federal threatened or endangered, proposed, candidate, and other special status species is promoted by the maintenance or restoration of their habitats.

3-3. Management practices maintain, restore, or enhance water quality in conformance with State or Federal standards.

3-4. Intensity, season and frequency of use, and distribution of grazing use should provide for growth and reproduction of those plant species needed to reach desired plant community objectives.

3-5. Grazing on designated ephemeral (annual and perennial) rangeland may be authorized if the following conditions are met:

- Ephemeral vegetation is present in draws, washes, and under shrubs and has grown to useable levels at the time grazing begins;
- Sufficient surface and subsurface soil moisture exists for continued plant growth;
- Serviceable waters are capable of providing for proper grazing distribution;
- Sufficient annual vegetation will remain on site to satisfy other resource concerns (i.e., watershed, wildlife, wild horse and burro); and
- Monitoring is conducted during grazing to determine if objectives are being met.

3-6. Management practices will target those populations of noxious weeds that can be controlled or eliminated by approved methods.

3-7. Management practices to achieve desired plant communities will consider protection and conservation of known cultural resources, including historical sites, and prehistoric sites and plants of significance to Native American peoples.

2.9.2 CRITERIA FOR CLASSIFYING ALLOTMENTS AS EPHEMERAL

Allotments may be classified as ephemeral in accordance with the Special Ephemeral Rule published December 7, 1968 though Rangeland Health Assessments. BLM has established criteria based upon the Special Rule through which allotments can be classified as ephemeral. These criteria include:

1. Rangelands are within the hot desert biome;
2. Average annual precipitation is less than eight inches;
3. Rangelands produce less than 25 pounds per acre of desirable forage grasses;
4. The vegetative community is composed of less than five-percent desirable forage species;
5. The rangelands are generally below 3,500 feet in elevation;
6. Annual production is highly unpredictable and forage availability is of a short duration;
7. Usable forage production depends on abundant moisture and other favorable climatic conditions; and
8. Rangelands lack potential to improve existing ecological status and produce a dependable supply of forage through intensive rangeland management practices.

Administrative Actions

- Land health standard evaluations would continue on all grazing allotments in accordance with established schedules, grazing regulations and policies. The above criteria would be addressed as individual allotments are evaluated for compliance with the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration.

2.10 WILD HORSE AND BURRO MANAGEMENT

Wild horses and burros are protected by the Wild Free-Roaming Horse and Burro Act of 1971, as amended by FLPMA of 1976, and Public Rangelands Improvement Act of 1978 (Public Law 95-514). After the passage of the Act, BLM became the managing agency responsible for protecting these animals and their habitat on BLM-administered public lands. The management of wild horses and burros on public lands is accomplished at the minimum level necessary to assure the herd's free-roaming character, health, and self-sustaining ability in accordance with the 1971 Act.

BLM YFO manages one Herd Area (HA) and one Herd Management Area (HMA) that share identical boundaries. The Cibola-Trigo HMA was identified in 1973 and is comprised of slightly

more than one million acres located entirely within the planning area. In Arizona, the Cibola-Trigo HMA supports both wild horses and burros. While in southwestern California, only the wild burro roams between the Colorado River and the Chocolate/Mules and Picacho HMAs. In California, wild horses and burros are managed in accordance with the *Proposed Northern and Eastern Colorado Desert Coordinated Management Plan and Final EIS* (USDOI BLM 2002a).

The HA represents a historic range and therefore the acres remain the same for each alternative. The number of acres proposed for the Cibola-Trigo HMA under Alternative A is the same as the historic range. The HMA boundary would be adjusted to only include those portions of the HA west of Highway 95 and south of I-10 under Alternative B through the Proposed Plan. HMAs by alternative for Wild Horse and Burro Management are presented in Table 2-9 and Map 2-6a (Alternative A) and Map 2-6b (Alternative B through the Proposed Plan).

Table 2-9
Wild Horse and Burro Herd and Herd Management Areas by Alternatives

HMA	Alternative (BLM acres)				
	A	B	C	D	E
Herd Area (historic)	263,700	263,700	263,700	263,700	263,700
Cibola-Trigo HMA	263,700	179,000	179,000	179,000	179,000

HA = Herd Area; HMA = Herd Management Area

Desired Future Conditions

- Maintain a viable and sustainable population of wild, free roaming horses and burros in the Cibola-Trigo HMA, while maintaining a thriving natural ecological balance with other resources and consistent with other management agencies objectives.
- Wild horses and burros would be managed in areas adjacent to the NWRs on the Colorado River in accordance with mutual agreements established for resource protection to meet the National Refuge management objectives. This includes agreed upon use levels for key forage species currently identified.

Management Common to All Alternatives

- The Appropriate Management Level (AML_2) for the Cibola-Trigo HMA would be 165 burros and 150 horses. Monitoring data, including climate, population, and vegetative data, would be collected and used to support removals and/or the revision of AML_2 for either wild horses, burros, or both.
- NWRs are not included within the boundaries of the Cibola-Trigo HMA. Imperial and Cibola NWRs would allow burro use if impacts to xero-riparian vegetation are kept to a minimum by maintaining the AML_2.

Management Actions

- Reduce the Cibola-Trigo HMA to 179,000 acres under Alternatives B, C, D, and the Proposed Plan.

Table 2-10
Wild Horse and Burro Management Actions by Alternative

Management Action	Alternative				
	A	B	C	D	E
YFO would mitigate loss of access to water along the Colorado River due to changing land use by either providing fenced access routes or developing new sources of water.	X	X	X	X	X
Identify objectives for herd composition, animal characteristics, and habitat development. The AML_2 may be adjusted based on monitoring data and subsequent evaluations.		X	X	X	X
Wild horses and burros utilizing the HA east of Highway 95 would be removed due to animal safety and health issues. Wild horses may be relocated into the HMA to the extent that they would not exceed the AML_2; all others would be offered for adoption through the Wild Horse and Burro Adoption Program.		X	X	X	X

YFO = Yuma Field Office; AML_2 = Appropriate Management Level; HA = Herd Area; HMA = Herd Management Area

Administrative Actions

- Conduct population status and rangeland condition assessments periodically for population trend monitoring and habitat condition evaluation. Collect relevant and essential background information using established protocol.
- Review current herd management directions and rangeland conditions of the Cibola-Trigo HMA. Identify relevant changes in management directions to ensure multiple-use and ecological sustainability in the Cibola-Trigo HMA supporting the wild horses and burros.
- Conduct herd monitoring annually in accordance with established protocol. Monitoring data would be used for periodic review of the AML_2 and guide animal removal decisions.

2.11 RECREATION MANAGEMENT

There are several regulations, laws, policies, and guidelines that authorize and direct BLM recreation management activities. FLPMA originally mandated that the BLM was to manage outdoor recreation resources on public lands. Section 202(c)(9) calls for land use planning consistent with Statewide Comprehensive Outdoor Recreation Plans. FLPMA's implementing regulations enable the BLM to collect SRP fees for organized group events, commercial activities, and use of specially designated public lands, such as the planning area's two LTVAs. The Federal Lands Recreation Enhancement Act (FLREA) authorizes the BLM to collect amenity recreation fees for the public use of developed recreation facilities. YFO currently manages seven developed recreation sites that charge amenity recreation fees under the authority of FLREA. YFO is required to reinvest all SRP and amenity recreation fees back into each respective fee program for recreation maintenance, enhancement, and development.

Recreation along the lower Colorado River is managed in coordination with Reclamation and conforms to the *Lower Colorado River LUP* of 1964 (USDOI 1964) and the Colorado River

Floodway Protection Act of 1986, as amended. The planning area's two recreation concession leases are managed according to the 1993 BLM *Yuma District's Concession Review Program* (USDOI BLM 1993a). YFO recreation management also adheres to the BLM *Arizona Standards for Rangeland Health and Guidelines for Grazing Administration*, ESA of 1973, as amended, NHPA of 1966, as amended, and NEPA of 1969, as amended.

BLM recognizes that natural resource-based recreation is a significant economic contributor in most communities adjacent to public lands. The *BLM's Priorities for Recreation and Visitor Services* (USDOI BLM 2003a) states, "Our multiple-use mission is to serve the diverse outdoor recreation demands of visitors while helping maintain the sustainable conditions needed to conserve their lands and their recreation choices." The document sets three primary goals for the BLM recreation program:

1. Improve access to appropriate recreation opportunities on USDOI-managed or -partnered lands and waters;

2. Ensure a quality experience and enjoyment of natural and cultural resources on USDOI-managed or -partnered lands and waters; and

3. Provide for and receive fair value in recreation.

The public lands are primarily managed to maintain a freedom of recreational choice with a minimum of regulatory constraints. As such, a majority of public lands have recreation opportunities that can be appropriately provided for in conjunction with the other resource demands sanctioned by the BLM's multiple-use mission.

The YFO would manage recreational opportunities on the public lands to maintain six different prescribed recreation settings, ranging from Primitive to Urban (as defined in Chapter 3). Prescribed recreation settings were based on the results of a 2005 Recreation Opportunity Spectrum (ROS) Inventory of the public lands within the YFO (see Map 3-25). The results of the ROS Inventory were adjusted to accommodate the various other resource allocations proposed under each alternative. While YFO would strive to manage the public lands to support these prescribed recreation settings, they would not ultimately restrict or authorize future Management and Administrative Actions. Table 2-11 and Maps 2-7a through 2-7d convey the acreages and locations of the six different types of prescribed recreation settings the YFO would manage for under each alternative.

Table 2-11
Prescribed Recreation Settings by Alternative

Prescribed Recreation Settings	Alternatives (BLM acres)				
	A*	B	C	D	E
Primitive	n/a	167,800	167,800	167,800	167,800
Semi-primitive	n/a	147,400	135,400	436,700	154,700
Rural Natural	n/a	786,700	689,100	282,200	723,900
Rural Developed	n/a	171800	144,900	65,600	131,700
Suburban	n/a	2,500	2,500	2,500	5,700
Urban	n/a	8,300	8,300	8,300	4,700

*Recreation settings were not prescribed for the planning area in previous plans.

Desired Future Conditions

- The prescribed recreation settings would (1) provide guidance on what types of actions and mitigation measures are appropriate on the public lands when comprehensively examined along with other BLM resource allocations, and (2) disclose to the public the potential impacts to recreational conditions during the NEPA analysis process for future proposed actions.

Management Actions

Management Actions by alternative for recreation are presented in Table 2-12 below.

Table 2-12
Recreation Management Actions by Alternative

Management Actions	Alternative				
	A	B	C	D	E
Collect amenity recreation fees at the Squaw Lake, Senator's Wash, North Shore, South Shore, Betty's Kitchen, Oxbow Recreation and Wildlife Area, and Ehrenberg Sandbowl recreation sites under the authority of FLREA.	X	X	X	X	X
Authorize SRP activities on a case-by-case basis in conformance with NEPA to provide for a wide range of recreation opportunities on BLM-administered lands. Collect SRP fees for authorized activities and use of the La Posa and Imperial Dam LTVAs.	X	X	X	X	X
Where warranted by increased recreation demands and user and resource conflicts, expand the recreation fee program to additional BLM-administered lands. The development of new and expanded recreation fee sites would be contingent upon the completion of publicly reviewed recreation activity plans. Activity-level management plans must document the long-term compatibility of such proposals with the BLM's multiple-use mission.	X	X	X		X
Where appropriate, construct and modify recreation facilities and outdoor developed areas so they are accessible to people with disabilities in accordance with the Architectural Barriers Act of 1968 and Section 504 of the Rehabilitation Act of 1973, as amended, and in conformance with relevant building standards, accessible outdoor program guidance, and program regulations.	X	X	X	X	X
Construct only flood-proofed facilities within the lower Colorado River 100-year floodplain. Examples include, but are not limited to, boat ramps, boat services, ramadas, kiosks, parking lots, picnic tables, grills, fire rings, trash cans, outdoor showers, restrooms, campsites, and electric hookups.	X	X	X		X
Allow the existing permanent structures to remain in the lower Colorado River 100-year floodplain until they are inundated or their useful life is gone.	X	X			X
Issue new recreation concession leases on a case-by-case basis in conformance with FLPMA. Land use alternatives that should be considered during NEPA analysis include accommodating the current lessee's request, allowing other potential bidders an opportunity to enter the recreation concession lease program, converting the lease to a traditional BLM-managed recreation site, and restoring the land to wildlife habitat.	X	X			X
No new recreation concession leases would be issued within the planning area.			X	X	
Maintain, install, and improve informational and interpretive kiosks and signs at the main points of access and interest throughout the planning area. Kiosks and signs would focus on informing visitors of applicable regulations and sustainable outdoor recreation ethics.		X	X		X
Identify a sufficient number of staging areas and base camps throughout the planning area for authorized SRP activities through collaboration with local agencies and organizations.		X			X

Table 2-12
Recreation Management Actions by Alternative (cont.)

Management Actions	Alternative				
	A	B	C	D	E
Install and maintain vehicle and pedestrian traffic counters on BLM-administered lands with high public use to improve the accuracy of visitor use monitoring data.		X	X		X
Reduce and or remove hazardous fuels in recreation sites to improve public safety in coordination with the BLM Fire Management program.	X	X	X	X	X
Protect at-risk cultural resources and special status plant and animal species from recreational damage as needed throughout the planning area. Protection measures could include, but are not limited, to fencing, signs, and trail realignments, restorations, and use limitations.			X	X	X
Continue implementing decisions from the La Posa Interdisciplinary Management Plan, the Ehrenberg-Cibola Recreation Area Management Plan, and the Oxbow Recreation and Wildlife Area Management Plan.	X	X	X		X
Limit the length of stay for overnight camping on BLM-administered lands to 14 days within any 28-day period. After 14 days, visitors must move to another campsite at least 25 miles away. This length of stay limit does not apply within recreation concession leases, public agency leases, LTVAs, and the Mittry Lake Wildlife Area.	X	X	X	X	X
Limit the length of stay for overnight camping at the Mittry Lake Wildlife Area to 10 days per calendar year.	X	X	X	X	X
Allow continuous overnight camping from September 15 to April 15 within the La Posa and Imperial Dam LTVAs.	X	X	X	X	X
Authorize SRPs for competitive events on BLM-administered lands on a case-by-case basis.	X	X			X
Prohibit competitive events on BLM-administered lands within the planning area.			X	X	
Prohibit SRP vending operations within Undeveloped SRMAs.				X	
Expand the administrative boundary of the Oxbow Recreation and Wildlife Area as needed to benefit the recreational and/or riparian values of the lower Colorado River.	X	X			X
Limit 2,900 acres of the Big Marias ACEC to day-use only (see Map 2-1e-1).				X	X
Limit 400 acres of the Dripping Springs ACEC to day-use only (see Map 2-1e-2).					X
Limit 3,700 acres of the Sears Point ACEC to day-use only (see Map 2-1e-3).					X

BLM = Bureau of Land Management; FLREA = Federal Lands Recreation Enhancement Act; LTVA = Long Term Visitor Area; NEPA = National Environmental Policy Act; RMP = Resource Management Plan; SRMA = Special Recreation Management Areas; SRP = Special Recreation Permit

Administrative Actions

Administrative Actions by alternative for recreation are presented in Table 2-13.

Table 2-13
Planning Area-wide Recreation Administrative Actions by Alternative

Administrative Actions	Alternative				
	A	B	C	D	E
Update publicly reviewed Recreation and Visitor Services' Business Plans as needed to propose changes in the recreation fee program.	X	X	X		X
Determine the need for facilities within designated Open OHV Management Areas to address public safety and resource protection concerns. If facilities are needed, consider collecting recreation fees to cover facility installation and maintenance costs.		X	X		X
Monitor and administer recreation concession leases according to the 1993 Yuma District Concession Review Program.	X	X	X	X	X

Table 2-13
Planning Area-wide Recreation Administrative Actions by Alternative (cont.)

Administrative Actions	Alternative				
	A	B	C	D	E
Within the lower Colorado River floodplain, coordinate with Reclamation to (1) ensure that recreation projects do not affect water delivery and storage or the integrity of the floodway and (2) ensure that impacts to recreation are considered during river management activities.	X	X	X	X	X
Develop and enhance partnerships and the YFO volunteer program to improve recreational opportunities and promote community stewardship of the public lands.		X	X		X
Enhance and expand the YFO's interpretive and outreach programs for the purposes of public education and resource protection.			X	X	X
Work with interested cooperators to develop a proposal for the U.S. Board on Geographic Names to change the names of Squaw Lake and the Squaw Lake Campground.		X	X	X	X

OHV = Off-highway vehicle; YFO = Yuma Field Office

2.11.1 RECREATION MANAGEMENT AREAS

Special Recreation Management Areas (SRMA) are allocated where the resources of the public lands attract visitors from one of the three following recreation markets:

- Public lands with a demonstrated *community* recreation market would be managed as a Community SRMA. A Community SRMA is managed in collaboration with local community partners to primarily benefit the local residents;
- Public lands with a demonstrated *destination* recreation market would be managed as a Destination SRMA. A Destination SRMA is managed as a regional or national destination through local, regional, and national partnerships to provide facilities and services that meet the recreational demands of outside visitors; and
- Public lands with a demonstrated *undeveloped* recreation market would be managed as an Undeveloped SRMA. An Undeveloped SRMA is proactively managed to intentionally sustain dispersed and undeveloped recreation opportunities and experiences.

YFO lands outside of SRMAs are managed as Extensive Recreation Management Areas (ERMA). Recreation management within ERMAs would be limited to custodial actions only. Custodial actions are primarily reactive in order to manage dispersed activities, visitor health and safety, and user and resource conflicts. ERMAs are generally managed directly through LUP decisions and do not require additional activity-level planning.

For proposals concerning OHV and other trail-based recreation activities, please see the Travel Management section in this chapter.

Proposed SRMAs are presented in Table 2-14 and Maps 2-8a through 2-8e.

Table 2-14
Special Recreation Management Areas by Alternative (BLM acres)

Allocation	Alternative				
	A*	B	C	D	E
Colorado River Corridor Destination SRMA	n/a	130,100	94,000	11,000	147,300
Greater Yuma Community SRMA	n/a	0	64,900	35,600	123,200
Greater Yuma Destination SRMA	n/a	166,700	0	0	0
Gila River Valley Undeveloped SRMA	n/a	0	101,900	130,900	43,300
Yuma East Undeveloped SRMA	n/a	0	457,400	511,800	528,300
Yuma East Community SRMA	n/a	587,300	0	0	0
La Posa Destination SRMA	n/a	400,300	400,300	239,500	308,400
ERMA	n/a	33,600	199,500	389,200	167,500
Total BLM	1,318,000	1,318,000	1,318,000	1,318,000	1,318,000

SRMA = Special Recreation Management Area; ERMA = Extensive Recreation Management Area; BLM = Bureau of Land Management
*The 1994 Final Ehrenberg-Cibola Recreation Area Management Plan allocated 112,700 acres as a Recreation Management Area but did not identify a Destination, Community, or Undeveloped marketing strategy.

2.11.2 RECREATION MANAGEMENT ZONES

Within each SRMA, BLM also allocates Recreation Management Zones (RMZ). An RMZ represents public lands with a distinctive recreation niche (activities, experiences, and benefits) within each SRMA. YFO would focus management, funding, and planning within RMZs to implement and maintain proposed Desired Future Conditions, Recreation Management Objectives, and Management and Administrative Actions.

The allocation of RMZs provides the planning area with an activity-level planning framework for future recreation management. Activity-level recreation management plans based on this framework would provide additional opportunities for public involvement and agency collaboration to further ensure that future proposed actions are compatible with the BLM's multiple-use mission.

The proposed RMZ boundaries are not intended to confer authority, responsibility, or jurisdiction over lands and waters that are not administered by the BLM. Proposed RMZ boundaries reflect the fact that these lands and waters are essential components of comprehensively managing the entire area.

BLM IM Number 2006-060 instructs the BLM to incorporate benefits-based recreation management principles into all new LUPs. Benefits-based management varies from the traditional "activity-based" recreation management approach, which primarily focused on specific activities and the associated facilities needed to support such uses. Benefits-based recreation focuses management on a primary activity within each RMZ. These primary activities provide the public with certain types of experiences on the public lands. Providing these experiences then produces a variety of personal, community, economic, and environmental benefits.

A. COLORADO RIVER CORRIDOR SRMA AND RMZS

Desired Future Conditions for Colorado River Corridor Destination SRMA

- The primary recreation management strategy for the Colorado River Corridor SRMA would be to target the demonstrated regional *destination* tourism market. Public use of the SRMA varies by season. Family and groups from metropolitan centers in Arizona and California visit the SRMA primarily for water-based activities during the summer. During the winter, the SRMA is a destination for OHV riding, hunting, camping, horseback riding, cultural resource viewing, and fishing throughout the region. These recreation opportunities would be sustained and enhanced through the implementation of identified Recreation Management Objectives and the maintenance of prescribed recreation settings.

Management Actions

- Allocate the Colorado River Corridor Destination SRMA under Alternatives B, C, D, and the Proposed Plan (acreages reflected in Table 2-15).

Table 2-15
Colorado River Corridor SRMA by Alternative

Allocation	Alternative				
	A	B	C	D	E
Primary Marketing Strategy	n/a	Destination	Destination	Destination	Destination
Acreage	n/a	130,100	94,000	11,000	147,300
Access RMZ	n/a	X			
Blythe Intaglios Heritage RMZ	n/a	X	X	X	X
Ehrenberg-Cibola RMZ	n/a	X	X	X	X
Trigo Mountains Wilderness RMZ	n/a	X			X

SRMA = Special Recreation Management Area; RMZ = Recreation Management Zone

Administrative Actions

- Promote the following environmental education programs and topics to ensure that recreational activities remain sustainable within the Colorado River Corridor SRMA: Tread Lightly!, Leave No Trace, wildland fire prevention and mitigation, Stop Aquatic Hitchhikers!, invasive species prevention, archaeological ethics, natural and cultural history of the lower Colorado River, desert survival skills, and OHV safety.
- Coordinate and form partnerships with the following agencies and groups for comprehensive and collaborative management of the Colorado River Corridor SRMA: AGFD, Arizona State Lands Department, BLM El Centro Field Office, BLM Palm Springs/South Coast Field Office, CDFG, Arizona and California SHPO, Cibola NWR, City of Blythe, Imperial County, Imperial NWR, La Paz County, Reclamation, Riverside County, Native American tribes and groups, Sonoran Desert Invasive Species Council, Southern Low Desert Resource Conservation and Development Council, Town of Cibola, Town of Ehrenberg, Town of Palo Verde, United Desert Gateway, U.S. Army Corps of Engineers, USFWS, and YPG.

B. GREATER YUMA SRMA AND RMZS

Desired Future Conditions for Greater Yuma Community SRMA

- Under Alternatives C, D, and the Proposed Plan, the primary recreation management strategy for the Greater Yuma SRMA would be to target the demonstrated *community* tourism market. Residents of local communities are the primary visitors of the SRMA, who come to hike, camp, boat, fish, hunt, mountain bike, and ride horses and OHVs. These recreation opportunities would be sustained and enhanced through the implementation of identified Recreation Management Objectives and the maintenance of prescribed recreation settings.

Desired Future Conditions for the Greater Yuma Destination SRMA

- Under Alternative B, the primary recreation management strategy for the Greater Yuma SRMA would be to target a *destination* tourism market. YFO would proactively seek to form local, regional, and national partnerships to promote the hiking, camping, boating, fishing, hunting, mountain biking, and horseback riding opportunities within the SRMA as a national destination. These recreation opportunities would be sustained and enhanced through the implementation of identified Recreation Management Objectives and the maintenance of prescribed recreation settings.

Management Actions

- Allocate the Greater Yuma SRMA as a Destination SRMA under Alternative B, and a Commu-nity SRMA under Alternatives C, D, and the Proposed Plan (acreages reflected in Table 2-16).

Table 2-16
Greater Yuma SRMA by Alternative

Allocation	Alternative				
	A	B	C	D	E
Primary Marketing Strategy	n/a	Destination	Community	Community	Community
Acreage	n/a	166,700	64,900	35,600	123,200
Access RMZ	n/a	X			
Anza NHT RMZ	n/a	X	X	X	X
Gila Mountains RMZ	n/a	X	X		X
Imperial Dam RMZ	n/a	X	X	X	X
Laguna Mountains RMZ	n/a	X	X		X
Limitrophe RMZ	n/a	X	X	X	X
Mittry Lake RMZ	n/a	X	X	X	X
Sears Point Heritage RMZ	n/a	X			
Southern Desert Communities RMZ	n/a	X			X
Urban Recreation Lands RMZ	n/a	X	X	X	X

NHT = National Historic Trail; RMZ = Recreation Management Zone; SRMA = Special Recreation Management Area

Administrative Actions

- Promote the following environmental education programs and topics to ensure that recreational activities remain sustainable within the Greater Yuma SRMA: Tread Lightly!, Leave No Trace, archaeological ethics, Stop Aquatic Hitchhikers!, invasive species

prevention, wildfire prevention and mitigation, natural history and cultural history of Yuma, International Boundary safety, desert survival skills, health benefits of regular exercise, and OHV safety.

- Coordinate and form partnerships with the following agencies and groups for comprehensive and collaborative management of the Greater Yuma SRMA: Anza Trail Coalition of Arizona, AGFD, Arizona State Parks, Arizona State Lands Department, Arizona and California SHPOs, BMGR, BLM El Centro Field Office, CDFG, City of Yuma, Fisher's Landing, Hidden Shores recreation concession lease, Imperial County, Imperial NWR, Native American tribes and groups, LCR MSCP, The Marine Corps Air Station–Yuma (MCAS-Yuma), Martinez Lake, Mexico, NPS, Reclamation, Sonoran Desert Invasive Species Council, United Desert Gateway, U.S. Border Patrol, USIBWC, WMIDD, Yuma County, Yuma Historical Society, YPG, Yuma Trails, Inc., private landowners, and local public health agencies.

C. GILA RIVER VALLEY SRMA AND RMZs

Desired Future Conditions for the Gila River Valley Undeveloped SRMA

- The primary recreation management strategy for the proposed Gila River Valley SRMA would be to target the demonstrated *undeveloped* tourism market. Visitors come to this SRMA to enjoy dispersed hiking, hunting, fishing, and cultural resource viewing opportunities. These recreation opportunities would be sustained and enhanced through the implementation of identified Recreation Management Objectives and the maintenance of prescribed recreation settings.

Management Actions

- Allocate the Gila River Valley SRMA as Undeveloped under Alternatives C, D, and the Proposed Plan, with the acreages as reflected in Table 2-17.

Administrative Actions

- Promote the following environmental education programs and topics to ensure that recreational activities remain sustainable within the Gila River Valley SRMA: Tread Lightly!, Leave No Trace, archaeological ethics, invasive species prevention, wildland fire prevention and mitigation, Stop Aquatic Hitchhikers!, desert survival skills, natural and cultural history of the area, and OHV safety.

Table 2-17
Gila River Valley SRMA by Alternative

Allocation	Alternative				
	A	B	C	D	E
Primary Marketing Strategy	n/a	None	Undeveloped	Undeveloped	Undeveloped
Acreage	n/a	0	101,900	130,900	43,300
Access RMZ	n/a		X		X
Anza NHT RMZ	n/a			X	X
Gila Mountains RMZ	n/a		X	X	
Laguna Mountains RMZ	n/a			X	
Sears Point Heritage RMZ	n/a		X	X	X
Southern Desert Communities RMZ	n/a		X	X	

SRMA = Special Recreation Management Area; RMZ = Recreation Management Zone

- Coordinate and form partnerships with the following agencies and groups for comprehensive and collaborative management of the Gila River Valley SRMA: Anza Trail Coalition of Arizona, AGFD, Arizona State Parks, Arizona SHPO, BLM Lower Sonoran Field Office, Native American tribes and groups, NPS, Reclamation, Sonoran Desert Invasive Species Council, Town of Dateland, Town of Wellton, United Desert Gateway, WMIDD, Yuma County, Yuma Historical Society, Yuma Trails, Inc., and private landowners.

D. YUMA EAST SRMA AND RMZs

Desired Future Conditions for the Yuma East Undeveloped SRMA

- Under Alternatives C, D, and the Proposed Plan, the primary recreation management strategy for the identified Yuma East SRMA would be to target the demonstrated *undeveloped* tourism market. The area is a regional hunting destination, and this activity can only continue through the preservation of the SRMA's exemplary wildlife habitat. Recreation opportunities within the SRMA would be sustained and enhanced through the implementation of identified Recreation Management Objectives and the maintenance of prescribed recreation settings.

Desired Future Conditions for the Yuma East Community SRMA

- Under Alternative B, the primary recreation management strategy for the identified Yuma East SRMA would be to target a *community* tourism market. YFO would proactively seek to form partnerships with the surrounding rural communities to expand hiking, wildlife viewing, and OHV riding opportunities for local residents. Recreation opportunities within the SRMA would be sustained and enhanced through the implementation of identified Recreation Management Objectives and the maintenance of prescribed recreation settings.

Management Actions

- Allocate the Yuma East SRMA as a Community SRMA under Alternative B, and an Undeveloped SRMA under Alternatives C, D, and the Proposed Plan with acreages as reflected in Table 2-18.

Table 2-18
Yuma East SRMA by Alternative

Allocation	Alternative				
	A	B	C	D	E
Primary Marketing Strategy	n/a	Community	Undeveloped	Undeveloped	Undeveloped
Acreage	n/a	587,300	457,400	511,800	528,300
Access RMZ	n/a	X			
Dispersed Use RMZ	n/a	X	X	X	X
Eagletail Mountain Wilderness RMZ	n/a	X	X	X	X

SRMA = Special Recreation Management Area; RMZ = Recreation Management Zone

Administrative Actions

- Promote the following environmental education programs and topics to ensure that recreational activities remain sustainable within the Yuma East SRMA: Tread Lightly!, Leave No Trace, archaeological ethics, invasive species prevention, wildland fire prevention and mitigation, natural and cultural history of the area, and OHV safety.
- Coordinate and form partnerships with the following agencies and groups for comprehensive and collaborative management of the Yuma East SRMA: AGFD, Arizona State Parks, Arizona SHPO, Arizona Wilderness Coalition, BLM Lower Sonoran Field Office, Kofa NWR, Maricopa County, Native American tribes and groups, Sierra Club, Sonoran Desert Invasive Species Council, United Desert Gateway, Yuma County, YPG, and Yuma Valley Rod and Gun Club.

E. LA POSA SRMA AND RMZs

Desired Future Conditions for the La Posa Destination SRMA

- The primary recreation management strategy for the proposed La Posa SRMA would be to target the demonstrated *destination* tourism market. The SRMA is a national and international camping destination, with thousands of retirees migrating to the area every winter in RVs. While camping, these visitors also participate in a variety of other activities on the public lands, such as hiking, OHV riding, geocaching, and cultural resource viewing. These recreation opportunities would be sustained and enhanced through the implementation of identified Recreation Management Objectives and the maintenance of prescribed recreation settings.

Management Actions

- Allocate the La Posa Destination SRMA under Alternatives B, C, D, and the Proposed Plan, with acreages as reflected in Table 2-19.

Table 2-19
La Posa SRMA by Alternative

Allocation	Alternative				
	A	B	C	D	E
Primary Marketing Strategy	n/a	Destination	Destination	Destination	Destination
Acreage	n/a	400,300	400,300	239,500	308,400
Access RMZ	n/a	X	X		X
Dripping Springs Heritage RMZ	n/a	X	X	X	X
Highway 95 RMZ	n/a	X	X	X	X
Intensive Camping RMZ	n/a	X	X	X	X
Intensive Day-use RMZ	n/a	X	X	X	X
New Water Mountain Wilderness RMZ	n/a	X	X		X

SRMA = Special Recreation Management Area; RMZ = Recreation Management Zone

Administrative Actions

- Promote the following environmental education programs and topics to ensure that recreational activities remain sustainable within the La Posa SRMA: Tread Lightly!, Leave No Trace, archaeological ethics, invasive species prevention, wildland fire prevention and mitigation, natural and cultural history of the area, and OHV safety.
- Coordinate and form partnerships with the following agencies and groups for comprehensive and collaborative management of the La Posa SRMA: ADOT, AGFD, Arizona State Parks, Arizona SHPO, City of Yuma, Kofa NWR, La Paz County, Maricopa County, Native American tribes and groups, Sonoran Desert Invasive Species Council, Town of Bouse, Town of Quartzsite, United Desert Gateway, Yuma County, and YPG.

2.11.3 DESCRIPTION OF ALL RMZs

A. ACCESS RMZs

- **Recreation Niche:** These RMZs represent some of the most widely used and scenic motorized routes within the planning area. The Red Cloud Road, Gold Nugget Road, Clanton Hills Route, Red Raven Route, and Brenda Route have been identified as Access RMZs in the various RMP alternatives, and provide challenging OHV driving opportunities throughout a variety of stunning desert landscapes. The Agua Caliente Road and Plomosa Road have also been identified as Access RMZs in the various RMP alternatives, and provide exemplary landscape viewing opportunities with two-wheel drive vehicles.
- **Primary Activities:** OHV-based landscape viewing, auto-based landscape viewing, photography, and wildlife viewing.
- **Recreation Management Objective:** Throughout the life of the RMP, collaborate with interested partners to effectively interpret the resource values, identify vehicle safety requirements, and promote sustainable OHV ethics along the identified Access RMZs. Collaborate with adjacent BLM field offices accordingly to effectively manage Access RMZs that cross field office boundaries.

B. ANZA NATIONAL HISTORIC TRAIL RMZ

- **Recreation Niche:** This proposed RMZ represents the congressionally designated Anza Trail corridor within the planning area. The trail corridor for this RMZ is also the location of the historic Gila Trail, Mormon Battalion Trail, and Butterfield Overland Stage Route, and also served as a prehistoric trade route between indigenous peoples of the Yuma and Phoenix areas. BLM supports the development of the Anza Trail for public recreational use; however, the YFO manages a very limited amount of land within this RMZ.
- **Primary Activities:** Hiking, jogging, horseback riding, OHV riding, picnicking, swimming, mountain bike riding, camping, wildlife viewing, fishing, and learning about the area's natural and cultural history.
- **Recreation Management Objective:** Throughout the life of the RMP, promote the installation and maintenance of a recreational Anza Trail through collaborative partnerships which would provide local residents with convenient opportunities to exercise, effectively interpret Yuma's natural and cultural history, and connect local communities to the public lands.

C. BLYTHE INTAGLIOS HERITAGE RMZ

- **Recreation Niche:** The Blythe Intaglios Complex within the Big Marias ACEC provides cultural resource viewing opportunities that have the potential to educate visitors about the rich prehistoric cultures that once thrived along the lower Colorado River. The Big Maria Mountains and Riverside Mountains Wildernesses provide primitive non-motorized recreation opportunities.
- **Primary Activities:** Cultural resource viewing, natural landscape viewing, hiking, and hunting.
- **Recreation Management Objective:** Throughout the life of the RMP, ensure that recreational activities are compatible with the ACEC and Wilderness resource values within the RMZ.

D. DISPERSED USE RMZ

- **Recreation Niche:** Outstanding hunting and dispersed camping opportunities exist throughout the RMZ which is part of AGFD Game Management Unit 41. The RMZ also provides exemplary OHV riding, hiking, and wildlife and wildflower viewing opportunities.
- **Primary Activities:** Hunting, camping, OHV riding, hiking, wildlife and wildflower viewing.
- **Recreation Management Objective:** Throughout the life of the RMP, ensure that the RMZ continues to provide undeveloped and wildlife-based recreation opportunities through motorized and non-motorized means.

E. DRIPPING SPRINGS HERITAGE RMZ

- **Recreation Niche:** This RMZ would encompass the 11,700-acre Dripping Springs ACEC that is included in the Proposed Plan. Cultural resource viewing opportunities are available within this proposed RMZ, along with exemplary opportunities to view native vegetation and wildlife. Outstanding visual resources provide an exquisite backdrop for all of these activities.
- **Primary Activities:** Cultural resource viewing, wildlife and wildflower viewing, hiking, and hunting.
- **Recreation Management Objective:** Throughout the life of the RMP, ensure that heritage-based recreation does not negatively impact the natural and cultural resource values of the RMZ.

F. EAGLETAIL MOUNTAINS WILDERNESS RMZ

- **Recreation Niche:** Challenging outdoor adventures to hike, camp, and hunt exist throughout the mountain range's rugged and undeveloped terrain.
- **Primary Activities:** Hiking, hunting, landscape viewing, wildlife viewing, horseback riding, wildflower viewing, and photography.
- **Recreation Management Objective:** Throughout the life of the RMP, ensure that recreational activities remain compatible with the wilderness resource values of the RMZ.

G. EHRENBERG-CIBOLA RMZ

- **Recreation Niche:** This RMZ provides a wide range of water-based recreation opportunities on the lower Colorado River and trail-based recreation opportunities within the adjacent desert landscapes. A majority of the RMZ is undeveloped, providing some of the last remaining opportunities for isolated and unconfined recreation along the lower Colorado River.
- **Primary Activities:** Camping, fishing, boating, swimming, OHV riding, hunting, horseback riding, and wildlife viewing.
- **Recreation Management Objective:** Throughout the life of the RMP, maintain and upgrade the facilities at the Ehrenberg Sandbowl and Oxbow Recreation and Wildlife Area as needed to meet recreational demands and public health and safety requirements.

H. GILA MOUNTAINS RMZ

- **Recreation Niche:** The jagged peaks, rolling foothills, and stunning washes of the Gila Mountains provide the greater Yuma area with convenient hiking, OHV riding, and horseback riding opportunities.
- **Primary Activities:** Hiking, OHV riding, horseback riding, picnicking, wildlife viewing, rock hounding, and geocaching.

- **Recreation Management Objective:** Throughout the life of the RMP, ensure that legal public access, wildlife habitat, and cultural resources of the RMZ are not compromised from encroaching urban development and increasing recreational demands.

I. HIGHWAY 95 RMZ

- **Recreation Niche:** Between Yuma and Quartzsite, Highway 95 provides passing motorists with exceptional landscape viewing opportunities of the Chocolate, Gila, and Castle Dome Mountains. Historic sites associated with General Patton's pre-World War II military training operations and wild horse and burro viewing opportunities along the highway provided additional interpretive opportunities. The public lands east of Highway 95 provide OHV riding opportunities and access to the Kofa NWR.
- **Primary Activities:** Auto-based landscape touring, wildlife and wildflower viewing.
- **Recreation Management Objective:** Throughout the life of the RMP, collaborate with interested partners to effectively educate the public about the resource values and different agency missions along Highway 95.

J. IMPERIAL DAM RMZ

- **Recreation Niche:** The boating, floating, fishing, and swimming opportunities on the lower Colorado River and its associated backwaters cool down local and regional visitors throughout the long southwestern summers. The BLM-administered lands adjacent to both of the rivers' shorelines provide weekend residents, campers, and day-use visitors with exemplary OHV-riding opportunities. The Imperial Dam LTVA provides extended camping opportunities for winter visitors from September to April. Outstanding primitive recreation opportunities, such as hiking and wildlife viewing, are available in the Little Picacho Wilderness.
- **Primary Activities:** Long-term camping, short-term camping, boating, swimming, river floating, fishing, OHV riding, geocaching, hiking, and wildlife viewing.
- **Recreation Management Objective:** Throughout the life of the RMP, maintain and enhance the facilities at the Imperial Dam LTVA, South Shore, North Shore, Senator Wash Boat Launch, and Squaw Lake recreation sites as needed to meet recreational demands and comply with public health and safety requirements.

K. INTENSIVE CAMPING RMZ

- **Recreation Niche:** This proposed RMZ represents the 15,500 acres of public land surrounding the Town of Quartzsite, Arizona, that were designated as the La Posa LTVA and five free 14-day camping areas. This RMZ primarily provides winter visitors with long- and short-term RV camping opportunities, which are major contributors to the Town of Quartzsite's tourism industry.
- **Primary Activities:** Long-term and short-term camping.

- **Recreation Management Objective:** Throughout the life of the RMP, maintain and enhance the facilities within the La Posa LTVA and the Dome Rock, Plomosa Road, Hi Jolly, Scaddan Wash, and Road Runner 14-day camping areas as needed to meet recreational demands and public health and safety requirements.

L. INTENSIVE DAY-USE RMZ

- **Recreation Niche:** This proposed RMZ is composed of public land surrounding the Town of Quartzsite, Arizona, that has been closed to overnight camping. Both winter visitors and local residents participate in a variety of recreational activities throughout the undeveloped terrain of the RMZ.
- **Primary Activities:** OHV riding, landscape viewing, photography, cultural resource viewing, wildlife and wildflower viewing, hiking, rock hounding, geocaching, and model airplane flying.
- **Recreation Management Objective:** Throughout the life of the RMP, reduce the recreational impacts to the RMZ's natural and cultural resources through effective interpretation, adaptive management, and environmental education.

M. LAGUNA MOUNTAINS RMZ

- **Recreation Niche:** The rolling hills of the Laguna Mountains provide the greater Yuma area with convenient mountain biking opportunities. Numerous hiking, OHV, and equestrian trail opportunities are also available within the RMZ.
- **Primary Activities:** Mountain bike riding, hiking, OHV riding, and wildlife and landscape viewing,
- **Recreation Management Objective:** Throughout the life of the RMP, reduce user group conflicts and impacts to wildlife and cultural resources while ensuring that a wide variety of trail-based activities remain available.

N. LIMITROPHE RMZ

- **Recreation Niche:** The riparian resources of this RMZ provide local Native Americans with some of the last remaining cultural and traditional use opportunities along the lower Colorado River in the greater Yuma area. There is also the potential to cultivate the fishing, dove hunting, and wildlife viewing opportunities within the RMZ once the criminal activities associated with the International Boundary are addressed.
- **Primary Activities:** Native American cultural/traditional uses, wildlife viewing, hunting, and fishing.
- **Recreation Management Objective:** Throughout the life of the RMP, ensure that traditional use opportunities remain available to local Native Americans so they are able to maintain their cultural identities.

O. MITTRY LAKE WILDLIFE AREA RMZ

- **Recreation Niche:** Sport fishing, hunting, and wildlife viewing opportunities within this proposed RMZ significantly contribute to Yuma's eco-tourism industry. The RMZ also provides exemplary camping opportunities along Mittry Lake and environmental education opportunities at Betty's Kitchen Watchable Wildlife Area and National Recreation Trail.
- **Primary Activities:** Fishing, hunting, camping, boating, picnicking, hiking, environmental education, and wildlife viewing.
- **Recreation Management Objective:** Throughout the life of the RMP, effectively collaborate with AGFD and Reclamation, co-managers of the Mittry Lake Wildlife Area, to maintain and enhance wildlife-based recreation opportunities compatible with the purpose of the wildlife areas.

P. NEW WATER MOUNTAINS WILDERNESS RMZ

- **Recreation Niche:** Challenging outdoor adventures to hike, camp, and hunt exist throughout the RMZ's rugged mountain terrain.
- **Primary Activities:** Hiking, camping, hunting, and rock hounding.
- **Recreation Management Objective:** Throughout the life of the RMP, ensure that recreational activities remain compatible with the wilderness resource values of the RMZ.

Q. SEARS POINT HERITAGE RMZ

- **Recreation Niche:** The prolific petroglyphs within the Sears Point ACEC were created by an unusually diverse group of different indigenous cultures and provide cultural resource viewing opportunities. The unique geologic and riparian landscapes within the ACEC also provide exemplary landscape and wildlife viewing opportunities.
- **Primary Activities:** Cultural resource viewing, hiking, wildlife and wildflower viewing.
- **Recreation Management Objective:** Throughout the life of the RMP, ensure that heritage-based recreation activities remain compatible with the ACEC's resource values.

R. SOUTHERN DESERT COMMUNITIES RMZ

- **Recreation Niche:** This RMZ encompasses the public lands in the rapidly developing Dome Valley. Hunting, OHV riding, and hiking opportunities all exist within this RMZ. The Muggins Mountains Wilderness provides challenging, primitive recreation opportunities such as hiking. The RMZ also provides OHV riding opportunities to residents and winter visitors of the nearby local communities.
- **Primary Activities:** OHV riding, hunting, hiking, picnicking, wildlife and wildflower viewing.

- **Recreation Management Objective:** Throughout the life of the RMP, ensure that recreational activities remain compatible with the wilderness, natural, and cultural resource values within the RMZ.

S. TRIGO MOUNTAINS WILDERNESS RMZ

- **Recreation Niche:** This RMZ's numerous desert woodland washes provide some of the best horseback riding opportunities within the YFO. Historic mining operations south of the Trigo Mountains provide outstanding heritage tourism and rock hounding opportunities. Challenging outdoor adventures to hike, camp, and hunt also exist throughout the RMZ's rugged terrain.
- **Primary Activities:** Horseback riding, hiking, camping, hunting, wildlife viewing, and rock hounding.
- **Recreation Management Objective:** Throughout the life of the RMP, ensure that recreational activities remain compatible with the wilderness, natural, and cultural resource values within the RMZ.

T. URBAN RECREATION LANDS RMZ

- **Recreation Niche:** This RMZ represents isolated parcels of public lands within the urban Yuma environment not encompassed by other RMZs of the SRMA. While many of these parcels are small and isolated, they provide tremendous benefits to the community through the preservation of urban open spaces for activities such as dog walking, hiking, and wildflower viewing.
- **Primary Activities:** Dog walking, wildflower viewing, wildlife viewing, and hiking.
- **Recreation Management Objective:** Throughout the life of the RMP, ensure that YFO considers the intrinsic values of urban open space prior to authorizing the development of these lands.

2.12 TRAVEL MANAGEMENT

Public lands managed by the BLM YFO are intermingled with other Federal, State, county, and private lands. Managing access to and across the public lands is a vital task for the YFO. Authorities, policies, and regulations guiding BLM travel management include, but are not limited to FLPMA of 1976 (43 USC 1701 et seq.), EO 11644, EO 11989, Title 5 ROWs, *Revised Statute (RS) 2477 Roads, National Management Strategy Motorized Off-Highway Vehicle Use on Public Lands* (USDOI BLM 2001), *National Mountain Bicycle Strategic Action Plan* (USDOI BLM 2002c), *State Director Guidance for Arizona Land Use Planning Efforts* (IM No. AZ-2005-007), and the BLM *Roads and Trails Terminology Report* (USDOI BLM 2006b).

The following material proposes to designate OHV Management Areas, provides guidance for establishing the YFO Travel Management Network (TMN), and delineates Travel Management

Areas (TMAs) to provide more locale-specific planning guidance. For RMP provisions related to NHTs, NRTs, and National Byways refer to Section 2.3, Special Designations.

2.12.1 OHV MANAGEMENT AREAS

All BLM-administered lands must be designated as an Open, Closed, or Limited OHV Management Areas (43 CFR 8342.1). Criteria for the designation of Limited, Open, and Closed OHV Management Areas are established in 43 CFR 8340.0-5 (f), (g), and (h), respectively. The BLM may institute additional closures or restrictions at any time to protect persons, property, and public lands and resources (43 CFR 8364). Acreages for OHV Management Area designations proposed for each alternative are listed in Table 2-20 and identified on Maps 2-9a through 2-9e. However; OHV Management Area designations set forth in this PRMP/FEIS may only be changed through an RMP amendment.

Table 2-20
OHV Management Area Designations by Alternative

Designation	Alternative (BLM acres)				
	A	B	C	D	E
Open Areas					
Blaisdell	0	1,900	1,300	0	0
Ehrenberg Sandbowl	400	800	800	400	400
Martinez Lake	0	1,100	300	0	0
Total Open	400	3,800	2,400	400	400
Closed Areas					
Designated Wilderness	167,800	167,800	167,800	167,800	167,800
Dripping Springs	0	0	600	600	400
Fortuna Wash (Section 33)	100	0	0	0	100
Laguna Mountains	0	0	0	4,400	0
La Paz Valley	1,000	1,000	1,000	1,000	1,000
Muggins Mountains	0	2,200	1,900	1,900	2,200
North Bank Milpitas Wash	100	0	0	100	0
Sears Point	0	0	0	1,400	1,400
Wilderness Characteristics	0	0	0	56,600	0
Total Closed	169,000	171,000	171,300	233,800	172,900
Limited Areas					
Total Limited	1,148,600	1,143,200	1,144,300	1,083,800	1,144,700
Total Acres	1,318,000	1,318,000	1,318,000	1,318,000	1,318,000

A. OPEN OHV MANAGEMENT AREAS

Open OHV Management Areas are defined as areas where all types of vehicle use would be permitted at all times, anywhere in the area; visitors would not be restricted to existing and designated roads and trails. These areas would be adequately signed to provide the public with clear boundaries of open areas. Fencing or other structures may be used to further delineate the boundaries of open areas. The YFO would consider installing OHV trailhead facilities at Open OHV Management Areas to protect public health and safety, and adjacent resource values.

All new or expanded Open OHV Management Areas must have a site-specific environmental analysis completed prior to implementation, including NEPA, NHPA Section 106, and ESA Section 7 documentation. If the site-specific analysis reveals that the Open OHV Management Area would have an adverse or significant impact on resources, the footprint of the proposal may be moved or reduced to avoid or minimize impacts. If impacts to resources cannot be sufficiently avoided or mitigated during site-specific analysis, the proposed Open OHV Management Area would not be implemented.

Dune areas which support sensitive, special status, and/or priority species would not be available for future Open OHV Management Area designations.

Management Actions

- Under Alternatives A, D, and the Proposed Plan maintain the 400-acre Ehrenberg Sandbowl Open OHV Management Area.
- Under Alternative B, designate 1,900 acres to the proposed Blaisdell Open OHV Management Area, designate 1,100 acres to the proposed Martinez Lake Open OHV Management Area, and expand the Ehrenberg Sandbowl Open OHV Management Area to a total of 800 acres.
- Under Alternative C, designate 1,300 acres to the proposed Blaisdell Open OHV Management Area, designate 300 acres to the proposed Martinez Lake Open OHV Management Area, and expand the Ehrenberg Sandbowl Open OHV Management Area to a total of 800 acres.

B. CLOSED OHV MANAGEMENT AREAS

Closed OHV Management Areas are defined as areas where off-road vehicle use would be prohibited. Closed OHV Management Areas may be designated to protect persons, property, and public lands and resources where OHV use has been determined to be causing irreparable harm to the existing resources. Congressionally designated Wildernesses Areas are statutorily closed to motorized and mechanized use, except for purposes specifically provided for by law. These areas are shown in the LUP along with the acreage affected. The YFO currently maintains 167,800 acres of statutorily closed Wilderness. Non-Wilderness Closed OHV Management Areas are shown on Map 2-9e-1.

Management Actions

- Under all alternatives, maintain 167,800 acres of Closed OHV Management Areas within designated Wilderness and maintain the 1,000-acre Closed OHV Management Area in the La Paz Valley.
- Under Alternative A, maintain the 100-acre Closed OHV Management Area in Fortuna Wash and 100-acre Closed OHV Management Area in the North Bank Milpitas Wash.
- Under Alternative B, designate 2,200-acres in the Muggins Mountains as a Closed OHV Management Area.
- Under Alternative C, designate 1,900-acres in the Muggins Mountains and 600-acres at Dripping Springs as Closed OHV Management Areas.

- Under Alternative D, designate 600-acres at Dripping Springs, 4,400-acres in the Laguna Mountains, 1,900-acres in the Muggins Mountains, 100-acres in the North Bank Milpitas Wash, 1,400-acres at Sears Point, and two areas across 56,600 acres of lands with wilderness characteristics as Closed OHV Management Areas.
- Under the Proposed Plan, maintain the 100-acre Closed OHV Management Area in Fortuna Wash and 1,000-acre closure in La Paz Valley; and designate 400-acres at Dripping Springs, 2,200-acres in the Muggins Mountains, and 1,400-acres at Sears Point as Closed OHV Management Areas.
- Under all alternatives, delineate the boundaries of Closed OHV Management Areas and install wildlife-compatible vehicle barriers on an as-needed basis.

C. LIMITED OHV MANAGEMENT AREAS

Limited OHV Management Areas are where OHV travel is limited at certain times, in certain areas, and/or to certain vehicular use. These limitations may be of any type, but can generally be accommodated within the following type of categories: numbers of vehicles; types of vehicles (OHVs, motorcycles, high clearance, etc.); time or season of vehicle use; permitted or licensed use only; use on existing roads and trails; use on designated roads and trails; limited to administrative use only; and other restrictions. Cross-country vehicle travel may be permitted within Limited OHV Management Areas when a specific authorized task requires such use, and only where cross-country travel would not cause undue resource damage. Unauthorized cross-country travel which results in the creation of new routes or the widening or extension of existing routes would not be permitted within Limited OHV Management Areas.

Management Actions

- Under Alternatives B, C, D, and the Proposed Plan, limit motorized use within Limited OHV Management Areas to existing inventoried routes appearing on the YFO route inventory maps (Maps TMA-1 to TMA-5) until the YFO Transportation System is finalized. Motorized travel would not be allowed on roads, trails, and drivable washes that are not included on the YFO route inventory maps.
- During the development of the YFO Transportation System, provide additional opportunities for interested stakeholders to identify existing roads, trails, and drivable washes that do not appear on Maps TMA-1 to TMA-5. After the YFO Transportation System is finalized, limit motorized use within Limited OHV Management Areas to designated routes only.
- Under Alternatives B, C, D, and the Proposed Plan, allow motorized vehicles to pull off up to 100 feet from a designated route on either side of the centerline. This use would not be allowed along the Anza Trail or within ACECs and SCRMAs. Within these stated areas, motorized use shall remain within the route with reasonable use of the shoulder and immediate roadside for vehicle passage, parking/overnight camping, and emergency stopping. Where pulling off a vehicle 100 feet from a route's centerline is allowed, impacts to natural and cultural resources shall be monitored on a continuing basis. If monitoring results show effects that exceed limits of acceptable change, motorized vehicles would not be allowed to pull off 100 feet from any designated route on either side of centerline within the impacted area (IM No. AZ-2005-007).

- Under all alternatives, cross-country motorized travel would not be permitted for the retrieval of downed game within Limited OHV Management Areas.
- Allow the use of non-motorized wheeled game carriers to retrieve game kills on all BLM-administered lands, except within Congressionally Designated Wilderness.
- Limit equestrian use authorized by SRPs to pre-selected trails on a case-by-case basis. Within ACECs, limit all equestrian use to existing inventoried routes until the route designation process is complete.
- Cross-country, motorized travel would not be permitted for the retrieval of downed game.
- During the construction of rangeland developments, vehicles would use designated routes wherever possible for access to sites. Where no routes exist, vehicles would be authorized on a case-by-case basis to travel cross-country to avoid the need for road building. Where new roads must be built, roadbeds would be no wider than needed for reliable access. As a general practice, new roads would not be bladed for use in fence construction. Vehicles would travel cross-country or fences would be built without motorized access.
- Establish Supplementary Rules to enforce these travel limitations according to the guidelines set forth in 43 CFR 8365.1-6.
- Under Alternative A, designate 1,148,600 acres of Limited OHV Management Areas.
- Under Alternative B, designate 1,143,200 acres of Limited OHV Management Areas.
- Under Alternative C, designate 1,144,300 acres of Limited OHV Management Areas.
- Under Alternative D, designate 1,083,800 acres of Limited OHV Management Areas.
- Under the Proposed Plan, designate 1,144,700 acres of Limited OHV Management Areas.

2.12.2 YFO TRANSPORTATION SYSTEM

The YFO Transportation System refers to the sum of the YFO's recognized inventory of linear features (roads, primitive roads, and trails) formally recognized and approved as part of the YFO's Transportation System. The YFO Transportation System would be established through subsequent Travel Management Plans tiered to this RMP. The primary steps in developing BLM Travel Management Plans include the: (1) route inventory process, (2) route evaluation process, (3) route designation process, and (4) implementation of route designations. The first three steps in developing the YFO Transportation System must be completed within five years of the signing of the ROD for this PRMP/FEIS.

Desired Future Conditions

- The unauthorized proliferation of motorized and non-motorized recreation trails is reduced or halted.
- The YFO Transportation System continues to provide essential motorized access to non-Federal lands, access across BLM-administered lands, access to private in-holdings surrounded by BLM-administered lands, and recognizes prior existing access rights.

- The YFO Transportation System continues to provide adequate motorized access for the maintenance of wildlife water catchments and for dispersed recreation activities such as hunting.
- The YFO Transportation System provides for a wide variety of trail-based recreational opportunities (i.e., hiking, mountain biking, OHV riding, horseback riding) in a manner that reduces existing user conflicts.
- The YFO Transportation System minimizes impacts to identified sensitive resource values from routes that provide non-essential access.
- The YFO Transportation System is signed and mapped for public use in a manner consistent with other Federal land management agencies.

A. ROUTE INVENTORY PROCESS

Maps TMA-1 through TMA-5 identify approximately 4,600 miles of routes and other linear features located on BLM-administered lands within the planning area. Of these 4,600 miles, 3,200 miles have been inventoried on the ground and verified as routes by the BLM. The TMA maps also include 1,400 miles of linear features that have not yet been verified on the ground by the BLM. These linear features include those identified by the public as routes during the DRMP/DEIS public review and comment period and those identified by the BLM from 2005 aerial photos.

Management Action

- Under all alternatives, provide additional opportunities during future travel management planning processes for interested stakeholders to identify existing roads, trails, and drivable washes that do not appear on the YFO route inventory maps.

B. ROUTE EVALUATION PROCESS

The YFO route inventory would be brought forward into subsequent Travel Management Plans for each of the five delineated TMAs. All inventoried routes within each TMA would be systematically evaluated, and the positive and negative impacts of each route to the various resource values of the public lands would be documented. Previously designated routes may be reevaluated, if it can be shown that the previous designation is causing resource damage or user conflicts. Routes within the planning area would be evaluated using the Route Evaluation Tree© process, which is described in detail in Appendix 2-E.

Management Actions

Under all alternatives, evaluate and document each inventoried route's impacts to the following resources and uses of the public lands:

- Sensitive resources, such as:
  - Historic and cultural sites;

  - Special status wildlife and plant species, including Threatened, Endangered, Proposed, and Candidate species, Arizona and California State listed species, and BLM Sensitive Species;
  - Suitability for special status species reintroduction;
- Wildlife movement corridors;
- Wildlife habitat fragmentation;
  - Hydrology (e.g. springs, riparian and wetland conditions, washes, drainages, and water quality);
- Geology;
- Sensitive soils (e.g. cryptobiotic soils, desert pavement, erosion points); and
  - Air quality (e.g. PM_{10} non-attainment areas).

- Public access needs, such as:
  - Rights-of-way;
  - Easements;
  - Private property;
  - Highways, State and county roads providing access to the public lands; and
  - Route densities.

- Commercial activities, such as:
  - Mining (e.g. claims, quarries, claim markers, evidence of excavation, mines, open mine shafts);
  - Mineral/material operations;
  - Ranching (e.g., fences, corrals, tanks, troughs);
  - Public utilities (e.g., transmission lines, pipelines, towers, pump houses, telecommunication towers, etc.);
  - Railroads;
  - Apiaries; and
  - Economic impacts.

- Administrative sites, such as:
  - Wildlife monitoring sites;
  - Habitat restoration sites;
  - Weather stations;
  - Hazardous fuels treatment areas;
  - Wildlife water catchments;
  - Local community access;
  - Invasive vegetation treatment sites;
  - Wildland fire management; and
  - Other administrative access needs identified by cooperating agencies.

- Recreation activities, such as:
  - Trailheads and staging areas;
  - Designated recreation sites;
  - Designated interpretive sites;
  - Dispersed recreational activities, such as hunting and camping;
  - Prescribed recreation settings;

  - Scenic overlooks, points of known photographic interest;
  - Areas providing educational or scientific research opportunities;
  - Hunting;
  - Rockhounding destinations;
  - Historic type of use on individual routes (e.g. motorized, hiking, equestrian, mountain biking); and
  - Other destinations or points of interest.

- Human interaction issues, such as:
  - User conflicts;
  - Documented trespasses;
  - Illegal dumping; and
  - Route proliferation.

- Hazards, such as:
  - Unexploded ordinances;
  - Abandoned mines;
  - International Boundary issues; and
  - Other identified safety concerns.

Under all alternatives, provide opportunities during future travel management planning processes for interested stakeholders to identify beneficial and negative impacts from individual routes that should be considered during the route evaluation process.

C. ROUTE DESIGNATION PROCESS

The results of the route evaluation process would provide the baseline data to be considered for the route designation process, where each inventoried route would be designated as open, closed, or limited to public use. In general, BLM may close or limit routes on the public lands at any time as public health and safety and resource protection needs arise (43 CFR 8342). Routes may be limited seasonally or to specific types of uses to prevent and reduce impacts to resource values and user conflicts. While lands within Open OHV Management Areas would be exempt from the route evaluation/designation process, specific routes crossing these lands may be identified. No routes would be designated as open to motorized use within Closed OHV Management Areas. Routes within Closed OHV Management Areas may be designated to non-motorized modes of travel, such as hiking or horseback riding.

Management Actions

- Designate all inventoried routes within the YFO as open, closed, or limited to public use.
- Within ACECs and SCRMAs, designate resource-compatible roadside pulloffs for overnight camping purposes.
- Provide interested stakeholders with opportunities to provide input and written comments throughout the designation process.
- Identify individual route management needs, including, but not limited to, use specifications, signs, and vegetation management.

- Identify individual route maintenance needs to improve public health and safety and reduce the need to create redundant routes that avoid existing hazards.
- Identify individual route monitoring needs to detect and evaluate travel-related impacts to adjacent resources so that management changes can occur accordingly.
- Identify easements and ROWs (to be issued by BLM or others) needed to maintain or provide legal and safe access to the public lands.

Administrative Actions

- Coordinate with Reclamation to designate levee roads which provide essential access to local communities as open to public use.

D. IMPLEMENTATION OF ROUTE DESIGNATIONS

Following the approval of each individual *Travel Management Plan*, individual route designation decisions would be implemented and maintained on the ground according to the following guidance.

Management Actions

- YFO's strategy for restoring closed or unauthorized routes would be accomplished as rapidly as funding permits. Sensitive resources in immediate danger, or those that have been damaged by unauthorized use, would be a high priority for restoration. Typically, the restoration would be limited to that portion of the route of unauthorized use that is in line of sight from an open route. Each route would be evaluated on a case-by-case basis, and the most appropriate method of restoration would be used based on geography, topography, soils, hydrology, and vegetation. The methods of route restoration would include:
  - Not repairing washed-out routes,
  - Using natural barriers, such as large boulders,
  - Using rocks and dead and downed wood to obscure the route entryway,
  - Employing mulching, chipping, and raking to disguise evidence of routes,
  - Ripping up the route bed and reseeding with vegetation native to that area,
  - Utilizing fences or barriers,
  - Providing signs, including information to OHV users, on the need and value of resource protection,
  - Converting motorized two-track routes into non-motorized single track routes, and
  - Leaving the first 100 feet from the centerline of an open route un-restored to provide pullout areas or camping opportunities intended to discourage or prevent new ground disturbance elsewhere.
- Public lands would generally be available for transportation ROWs subject to NEPA evaluation, except where specifically prohibited by law or regulation. To the extent possible, new ROWs would avoid areas such as WHAs, VHAs, SCRMAs, ACECs, wilderness, and the Anza Trail.

Administrative Actions

- Establish a volunteer workforce to provide essential on the ground implementation of the signing, monitoring, and maintenance of the YFO Transportation System.
- Expand and pursue partnerships and sources of funding for travel management, public education, and law enforcement.
- Require all activities permitted by the YFO to stay on designated routes (IM No. AZ-2005-007).
- In the event that Title V ROWs are issued or in the event of a legal decision on RS 2477 assertions, manage routes under the terms of these authorities.

2.12.3 TRAVEL MANAGEMENT AREAS

The purpose of delineating TMAs is to provide more locale-specific transportation management guidance to be considered during the route evaluation, designation, and implementation processes. This guidance is meant to improve the YFO's ability to protect various resource values and provide a more balanced range of motorized and non-motorized opportunities throughout the planning area. This LUP would establish five TMAs within the planning area: the Greater Yuma, Gila River Valley, Ehrenberg-Cibola, La Posa, and Yuma East TMAs (Maps TMA-1 to TMA-5). These TMAs would account for all acres of BLM-administered land within the planning area. Each of the five TMAs has specific Desired Future Conditions, Management Actions, and Administrative Actions which are listed in Tables 2-21, 2-22, 2-23, 2-24, and 2-25. TMA guidelines will be used to develop the future *Travel Management Plans* for each TMA.

Table 2-21
Ehrenberg-Cibola TMA (152,300 acres, 650 miles of inventoried routes)

Desired Future Conditions					
Travel management is comprehensively managed in coordination with the adjacent BLM Palm Springs-South Coast and El Centro Field Offices, Colorado River Indian Tribes (CRIT) Reservation, Reclamation, Cibola and Imperial NWRs, and other interested Tribes and agencies.					
The future route designation process ensures that there is a wide variety of equestrian trail opportunities within the TMA.					
Management Actions	**Alternative**				
	A	**B**	**C**	**D**	**E**
Within the Big Marias Heritage RMZ (Big Marias ACEC and Big Maria Terraces SCRMA), limit equestrian use to existing inventoried routes until the route designation process is complete. Designate equestrian trails and install equestrian trailhead facilities to reduce user and resource conflicts. Limit equestrian use to these trails once they have been designated.			X		X

Table 2-21
Ehrenberg-Cibola TMA (152,300 acres, 650 miles of inventoried routes) (cont.)

Management Actions (cont.)	Alternative				
	A	B	C	D	E
Install and maintain the appropriate recreational trailhead facilities once the TMN has been established.		X	X		X
Sign designated routes and trails consistent with Federal land management agency standards.		X	X	X	X
Establish a volunteer host site at the Ehrenberg Sandbowl Open OHV Management Area. Install and maintain additional OHV trailhead facilities if needed to accommodate increased visitor use. Delineate the boundary of the designated open area on the ground.		X	X		X
Prohibit OHV use within the North Bank Milpitas Wash Restriction until June 1, 2008, in accordance with the notice published in the *Federal Register* on August 9, 2006.	X				
Lift the North Bank Milpitas Wash OHV Restriction and limit OHV use to existing inventoried routes until designated.		X	X		X
Administrative Actions	**Alternative**				
	A	**B**	**C**	**D**	**E**
Coordinate with the BLM Palm Springs-South Coast and El Centro Field Offices, CRIT Reservation, Reclamation, and Cibola and Imperial NWRs and other interested Tribes and agencies to ensure the future route designation process takes into account the other agencies' missions.		X	X	X	X
Develop partnerships and a volunteer workforce to enhance and expand equestrian trail opportunities.		X	X		X
Nominate designated hiking, mountain biking, and equestrian trails to the Arizona State Parks Trail System.		X	X		X

Table 2-22
Gila River Valley TMA (60,500 acres, 180 miles of inventoried routes)

Desired Future Conditions					
A multiple-use Anza NHT provides recreational trail connectivity between the Greater Yuma TMA and the BLM Lower Sonoran Field Office.					
Travel management is comprehensively managed in coordination with the adjacent BMGR, the BLM Lower Sonoran Field Office and other interested Tribes and agencies.					
Management Actions	**Alternative**				
	A	**B**	**C**	**D**	**E**
Install and maintain the appropriate recreational trailhead facilities once the TMN has been established.		X	X		X
Sign designated routes and trails consistent with Federal land management agency standards.		X	X	X	X
Establish recreational trail connectivity from the Anza NHT to local communities and the Sears Point ACEC.		X	X		X
Establish and/or improve hiking trails within the Sears Point ACEC in accordance with guidance outlined in the Special Designations Management section of this chapter and the Sears Point ACEC plan (to be developed).			X	X	X
Limit equestrian use within the Sears Point ACEC to inventoried routes until the route designation process is complete. Designate equestrian trails and install equestrian trailhead facilities to reduce user and resource conflicts. Limit equestrian use to these trails once they have been designated.			X	X	X

Table 2-22
Gila River Valley TMA (60,500 acres, 180 miles of inventoried routes) (cont.)

Administrative Actions	Alternative				
	A	B	C	D	E
Coordinate with the BMGR, BLM Lower Sonoran Field Office and other interested Tribes and agencies to ensure the future route designation process takes into account the other agencies' missions.		X	X	X	X
Nominate designated hiking and equestrian trails to the Arizona State Trails System.		X	X		X
Work with interested cooperators to establish legal and safe public access to Anza NHT trailheads and the Sears Point ACEC from Interstate 8.		X	X		X

Table 2-23
Greater Yuma TMA (133,600 acres, 650 miles of inventoried routes)

Desired Future Conditions
The future route designation process focuses on creating an interconnected system of motorized and non-motorized recreational trails for the use of local community residents.
A multiple-use Anza NHT provides local community residents with access to the various other recreational trails throughout the TMA.
Travel management is comprehensively managed in coordination with the adjacent BLM El Centro Field Office, BMGR, WMIDD, Reclamation, Imperial NWR, YPG, Cocopah and Fort Yuma Quechan reservations, and other interested Tribes and agencies.
The future route designation process provides route-specific use limitations to reduce user conflicts where multiple forms of travel are occurring.

Management Actions	Alternative				
	A	B	C	D	E
Install and maintain OHV trailhead facilities at the Blaisdell and Martinez Lake Open OHV Management Areas. Delineate the boundaries of the open areas on the ground and ensure that they comply with the NHPA and ESA.		X	X		
Identify an interconnected system of mountain biking and hiking trails within the Laguna Mountains. Establish recreational trail connectivity from the Laguna Mountains to the Mittry Lake Wildlife Area and the Anza NHT.		X	X		X
Identify an interconnected system of equestrian and hiking trails in the Gila Mountains. Establish recreational trail connectivity from the Gila Mountains to the Anza NHT.		X	X		X
Establish designated motorized trail connectivity through the East Imperial Hills between Martinez Lake Road and the Hidden Shores RV Village BLM recreation concession lease.		X			X
Install and maintain the appropriate recreational trailhead facilities once the TMN has been established.		X	X		X
Sign designated routes consistent with Federal land management agency standards.		X	X	X	X
Work with cooperators to identify a water-based route suitable for canoeing, kayaking, and river floats along the lower Colorado River from Martinez Lake to downtown Yuma. Install and maintain launching and portage sites along the route as appropriate.		X			X
Within the Southern Desert Communities and Gila Mountains RMZs, limit equestrian use to existing inventoried routes until designation and install equestrian trailhead facilities to reduce user and resource conflicts.			X	X	

Administrative Actions	Alternative				
	A	B	C	D	E
Coordinate with the BLM El Centro Field Office, BMGR, WMIDD, Reclamation, Imperial NWR, YPG, Cocopah and Fort Yuma Quechan reservations, and other interested Tribes and agencies to ensure the future route designation process takes into account the other agencies' missions.		X	X	X	X

Table 2-23
Greater Yuma TMA (133,600 acres, 650 miles of inventoried routes)
(cont.)

Administrative Actions	Alternative				
	A	B	C	D	E
Nominate designated hiking, biking, and equestrian trails to the Arizona State Trails System.		X	X		X
Work with interested cooperators to establish legal and safe public access to and across designated recreational routes.		X	X		X
Develop a local volunteer workforce to monitor, maintain, and improve designated recreational routes.		X	X		X

Table 2-24
La Posa TMA (384,600 acres, 1,710 miles of inventoried routes)

Desired Future Conditions
The future route designation process ensures that motorized recreational trails within the La Posa TMA provide opportunities for challenging experiences for OHV riders.
The future route designation process determines the sustainability of existing rock crawling trails within the TMA.
Travel management is comprehensively managed in coordination with the adjacent BLM Lake Havasu Field Office, CRIT Reservation, Kofa NWR and other interested Tribes and agencies.

Management Actions	Alternative				
	A	B	C	D	E
Install and maintain the appropriate recreational trailhead facilities once the TMN has been established.		X	X		X
Sign designated routes consistent with Federal land management agency standards.		X	X	X	X
Establish and/or improve hiking trails within the Dripping Springs ACEC in accordance with guidance outlined in the Special Designations Management section (Section 2.3) of this chapter and the Dripping Springs interpretive plan (to be developed).			X	X	X
Limit equestrian use within the Dripping Springs ACEC to inventoried routes until the route designation process is complete. Designate equestrian trails and install equestrian trailhead facilities to reduce user and resource conflicts. Limit equestrian use to these trails once they have been designated.			X	X	X

Administrative Actions	Alternative				
	A	B	C	D	E
Coordinate with the BLM Lake Havasu Field Office, CRIT Reservation, Kofa NWR, and other interested Tribes and agencies to ensure the future route designation process takes into account the other agencies' missions.		X	X	X	X
Nominate designated hiking and equestrian trails to the Arizona State Trails System.		X	X		X

Table 2-25
Yuma East TMA (587,000 acres, 1,410 miles of inventoried routes)

Desired Future Conditions
Travel management is comprehensively managed in coordination with the adjacent BLM Lower Sonoran and Hassayampa Field Offices, Kofa NWR and other interested Tribes and agencies.
Travel management strives to retain the undeveloped nature of the TMA by limiting the number of paved roads authorized across BLM lands.

Table 2-25
Yuma East TMA (587,000 acres, 1,410 miles of inventoried routes)
(cont.)

Management Actions	Alternatives				
	A	B	C	D	E
Install and maintain the appropriate recreational trailhead facilities once the TMN has been established.		X	X		X
Sign designated routes consistent with Federal land management agency standards.		X	X	X	X
Within the Eagletail Mountains Wilderness prohibit recreational equestrian use within one quarter mile of Indian Springs to prevent impacts to wildlife habitat and cultural resource values. At equestrian trailheads, promote low impact hitching methods that the public can use prior to entering the Indian Springs area.		X	X		X
Administrative Actions	**Alternatives**				
	A	**B**	**C**	**D**	**E**
Do not authorize the paving of any roads within the TMA which would negatively impact the area's visual resources and wildlife habitat.			X	X	X
Coordinate with the BLM Lower Sonoran and Hassayampa Field Offices, Kofa NWR and other interested Tribes and agencies to ensure the future route designation process takes into account the other agencies' missions.		X	X	X	X
Develop a volunteer workforce to monitor and maintain designated routes.		X	X		X

2.13 VISUAL RESOURCE MANAGEMENT

BLM's responsibility to manage the scenic resources of the public lands is established by law, specifically by FLPMA, as mandated by the following sections.

1. Section 102 (a)(8). States that "...public lands will be managed in a manner which will protect the quality of the scenic (visual) values of these lands."
2. Section 103(c). Identifies "scenic values" as one of the resources for which public land should be managed.
3. Section 201(a). States that "The Secretary shall prepare and maintain on a continuing basis an inventory of all public lands and their resources and other values (including...scenic values)...."
4. Section 505(a). Requires that "Each right-of-way shall contain terms and conditions which will...minimize damage to the scenic and esthetic values...."

BLM is directed by BLM *Manual* 8400 to prepare and maintain on a continuing basis, an inventory of visual values on all public lands for each RMP effort. The VRM system provides a way to identify, evaluate, and determine the appropriate levels of management of scenic values. The inventory of visual values has been documented for the RMP according to BLM *Handbook* 8410-1 and can be found on Map 3-17 in this PRMP/FEIS. The inventory serves as the basis for the VRM Management Class I-IV, which take into account other resource uses on public lands within the planning area. The VRM classes are best defined by their Desired Future Conditions, which are described below. The overall goal of VRM analysis is to minimize visual impacts through development of mitigation measures.

VRM Land Use Designations

The following criteria was used to determine the proposed VRM Class designations for each RMP alternative: the overall management emphasis intended for each alternative; recognition of all applicable special designations and all land use allocations; assertion that other management activities and land uses may be achieved within the applicable VRM Class; and use of the least restrictive class that still achieves stated Desired Future Conditions. Proposed VRM class designations described in Alternatives A through the Proposed Plan primarily differ by the number of acres between each alternative. VRM land use designations are described in Table 2-26 and shown on Maps 2-10a through 2-10e.

Desired Future Conditions

The RMP alternatives would set landscape classes ranging from Class I to IV, and Desired Future Conditions for future projects would adhere to the following VRM class objectives as appropriate:

- **Class I.** To preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention;

Table 2-26
VRM Land Use Designations by Alternative (BLM acres)

VRM Class	Alternative				
	A	B	C	D	E
I (acres)	167,800	167,800	167,800	192,400	167,800
II (acres)	15,200	541,800	561,100	624,800	618,600
III (acres)	1,135,000	552,300	567,500	496,400	512,400
IV (acres)	0	56,100	21,600	4,400	19,200
Total Acres	1,318,000	1,318,000	1,318,000	1,318,000	1,318,000

- **Class II.** To retain the existing character of the landscape. The level of change to the characteristic landscape should be low;
- **Class III.** To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate; and
- **Class IV.** To provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high.

Management Actions

- Under Alternative A, continue existing VRM designations, with 167,800 acres of Class I, 15,200 acres of Class II, 1,135,000 acres of Class III, and 0 acres of Class IV.
- Under Alternative B, designate 167,800 acres of Class I, 541,800 acres of Class II, 552,300 acres of Class III, and 56,100 acres of Class IV

- Under Alternative C, designate 167,800 acres of Class I, 561,100 acres of Class II, 567,500 acres of Class III, and 21,600 acres of Class IV
- Under Alternative D, designate 192,400 acres of Class I, 624,800 acres of Class II, 496,400 acres of Class III, and 4,400 acres of Class IV.
- Under the Proposed Plan, designate 167,800 acres of Class I, 618,600 acres of Class II, 512,400 acres of Class III, 19,200 acres of Class IV.

Management Actions Common to all Alternatives

- All ROW Corridors and communications sites would be within VRM Class III.
- Incorporate design considerations to minimize potential impacts to public lands' visual values into all BLM-authorized surface disturbing activities, regardless of size. Emphasis would be on BLM providing input during the initial planning and design phase to minimize costly redesign and mitigation at a later time.
- Analyze all surface-disturbing projects that require BLM authorization according to the Visual Resource Contrast Rating guidelines and procedures as required by BLM *Manual* 8431-1. Assess the degree of visual contrast to the landscape's form, line, color, and texture from implementing these projects.
- Evaluate proposed surface-disturbing projects from key observation points for the following factors: distance (between project and key observation points), angle of observation, length of time the proposed project would be in view, relative size or scale, season of use, light conditions, recovery time, spatial relationships, atmospheric conditions, and motion.
- Use visual resource design techniques and BMPs (summarized in the BMP section later in this chapter) to mitigate the potential for short- and long-term visual impacts from other uses and activities.

Administrative Actions Common to all Alternatives

- Encourage visual resource simulations to be incorporated into the Contrast Rating Analysis for major BLM-authorized ground-disturbing activities, as recommended by BLM *Manual* 8431-1. Simulations would accurately convey to the public the anticipated impacts to visual scenery of the project area from the identified key observation points. Simulations would also serve as a point of reference to ensure that the project proponents reclaim and restore disturbed public lands as agreed to in the authorizing document.

2.14 WILDERNESS CHARACTERISTICS MANAGEMENT

Section 201 of FLPMA provides the BLM with the authority to inventory features of the land, including those associated with the concept of wilderness, or wilderness characteristics. Wilderness characteristics may be considered in land use planning decisions when BLM determines that those characteristics are reasonably present, of sufficient value and need, and are

practical to manage. BLM IM No. 2003-275-Change 1 provides guidance on considering lands to be managed to maintain existing wilderness characteristics, including prescribing Desired Future Conditions and Management and Administrative Actions.

Considering wilderness characteristics in the land use planning process may result in several outcomes, including, but not limited to 1) emphasizing other multiple uses as a priority over protecting wilderness characteristics; 2) emphasizing other multiple uses while applying management restriction (conditions of use, mitigation measures) to reduce impacts to some or all of the wilderness characteristics; 3) emphasizing the protection of some or all of the wilderness characteristics as a priority over other multiple uses (though the area would not be designated a WSA). BLM would not designate new WSAs through the LUP process; nor would the lands be managed under FLPMA Section 603 "non-impairment standard" and BLM Interim Management Policy for Lands under Wilderness Review. Additionally, lands with wilderness characteristics will not be managed as designated wilderness under the Wilderness Act of 1964 or WSAs.

YFO has evaluated lands within the planning area which may have wilderness characteristics. As stated in IM 2003-275-Change 1, BLM may use a variety of land use plan decisions, including, but not limited to, VRM, SCRMAs, ACECs, and WHAs to protect wilderness characteristics. The lands that would be managed to maintain wilderness characteristics by alternative are listed by BLM acres in Table 2-27 and shown on Maps 2-11a to 2-11c.

Table 2-27
Lands Managed to Maintain Wilderness Characteristics by Alternative (BLM acres)

Acres	Alternative				
	A	B	C	D	E
Wilderness Characteristics	0	48,400	91,400	301,200	48,400

Desired Future Conditions

For those areas where BLM has identified wilderness characteristics, these characteristics would be managed to be ecologically sustainable and resilient to human-caused disturbances. The following components of wilderness characteristics would be maintained:

- **Naturalness.** Lands and resources exhibit a high degree of naturalness when affected primarily by the forces of nature and where the imprint of human activity is substantially unnoticeable. Naturalness attributes may include the presence or absence of roads and trails, fences, and other improvements; the nature and extent of landscape modifications; the presence of native vegetation communities; and the connectivity of habitats. Wildlife populations and habitat are recognized as important aspects of naturalness and would be actively managed;
- **Solitude.** Visitors may have outstanding opportunities for solitude when the sights, sounds, and evidence of other people are rare or infrequent, where visitors can be isolated, alone, or secluded from others; and
- **Primitive and Unconfined Recreation.** Visitors may have outstanding opportunities for primitive and unconfined types of recreation where the use of the area is through non-

motorized, non-mechanical means of conveyance off designated routes or as specifically excepted, and where no or minimal developed recreation facilities are encountered.

Management Actions

The Management Actions listed in Table 2-28 outline how lands with wilderness characteristics would be managed under each alternative. In those lands identified to maintain wilderness characteristics, these management actions are meant to reduce impacts to some or all of the wilderness characteristics.

Table 2-28
Wilderness Characteristics Management Actions by Alternative

Management Actions	Alternative				
	A	B	C	D	E
Allow BLM-authorized surface disturbing activities or the permanent placement of structures and facilities, including but not limited to range improvements, water catchments, roads, trails, and fencing, or as required by law, only when the level of change to the characteristic landscape would be low, subject to criteria. (See Management Action 1 Project Criteria for BLM-authorized surface disturbing activities listed below.)	n/a	X	X		X
Allow maintenance of existing facilities.	n/a	X	X	X	X
Allow the construction of temporary roads, structures, and installations for emergency purposes.	n/a	X	X	X	X
Develop and/or construct new hiking and equestrian trails, as appropriate.	n/a	X	X		
Use of motor vehicles and mechanical transport, and the construction of temporary roads, structures, and installations would be allowed for emergency purposes. Any emergency actions would be conducted in a manner that creates the least disturbance and would be reclaimed as soon as possible after the situation has ended.	n/a		X	X	X
Allow the administrative use of motorized equipment on routes for natural and cultural resource management including but not limited to water supplementation, collar retrieval, and capture/release of wildlife, maintenance, repair, and reconstruction or construction of wildlife waters. Any administrative actions would be conducted in a manner that creates the least disturbance and reclaimed as soon as possible after the administrative need has ended.	n/a	X	X		X
Cross country travel for administrative purposes would be permitted only with prior approval by the authorized officer and following appropriate NEPA analysis. Any administrative action would be conducted in a manner that creates the least disturbance and reclaimed as soon as possible after the administrative need has ended.	n/a	X			X
Allow the use of non-motorized, mechanical transport such as wheeled game carriers.	n/a	X	X		X
Convert, where appropriate, routes closed to motor vehicles through the route designation process for use as bicycle, equestrian, or hiking trails.	n/a	X	X		X
Restore closed routes to natural conditions, where appropriate.	n/a			X	X
Decrease the visual effect of facilities on naturalness or scenic resources, when the opportunity arises, during reconstruction, replacement, or major maintenance.	n/a			X	X
Remove facilities that are no longer used, as funding and labor becomes available.	n/a			X	X
Evaluate and rehabilitate existing, unused, disturbed areas to a natural condition consistent with natural resource restoration objectives.	n/a			X	X
Rehabilitation, stabilization, reconstruction, and restoration work on prehistoric and historic sites and structures, as well as excavations and surface collection would be permitted, if wilderness characteristics are maintained.	n/a			X	
Reclaim sites and areas affected by human activities when such places are no longer needed for authorized land uses.	n/a	X	X	X	X

Table 2-28
Wilderness Characteristics Management Actions by Alternative (cont.)

Management Actions (cont.)	Alternative				
	A	B	C	D	E
Allow minimum impact activities to occur such as filming, commercial recreation, guided hunts and other associated activities, when such activities conform to LUP objectives, desired recreation settings, social and managerial settings, and VRM classes.	n/a		X	X	X
Allow vending operations and concession leases.	n/a	X			
Allow recreational or hobby collecting of mineral specimens when conducted without location of a mining claim and limited to hand collection and detection equipment.	n/a	X			
Allow fishing, hunting, and trapping activities. AGFD retains jurisdiction and responsibilities with respect to fish and wildlife management and establishes regulations and enforcement for these uses.	n/a	X	X	X	X
Retain lands managed to maintain wilderness characteristics in public ownership.	n/a	X	X	X	X
At time of renewal of any existing ROWs, YFO would discuss with the grant holder the possibility of relocating the ROW outside of identified lands with high value wilderness characteristics.	n/a	X	X	X	X
Regulate existing mineral leases to prevent unnecessary or undue degradation. Existing mineral materials permits represent a valid existing right, dependent upon the specific terms and conditions of the lease.	n/a	X	X	X	X
Issue any new mineral leases with a no-surface-occupancy stipulation.	n/a		X		
Authorize and issue new mineral leases.	n/a	X	X		X
Authorization of sale and free use permits (sand and gravel) would be allowed.	n/a	X	X		X
Allow existing livestock grazing operations and support facilities to continue.	n/a	X	X	X	X
Use minimum impact suppression tactics during fire suppression operations based on the appropriate management response.	n/a	X	X	X	X
Allow prescribed fires in conformity with a fire management plan so long as it is consistent in improving or maintaining the area's wilderness characteristics.	n/a	X	X	X	X
Allow vegetative manipulation to control noxious, exotic, or invasive plant species, when there is no effective alternative and when the control is necessary to maintain the natural ecological balances within the area. Control may include manual, chemical, and biological treatment, provided it would not cause adverse impacts to the wilderness characteristics.	n/a	X	X	X	X
Administrative Actions	**Alternative**				
	A	**B**	**C**	**D**	**E**
Develop and adopt monitoring and standards for acceptable change for trail conditions, visitor encounters, vegetation changes, applying Arizona Land Health Standards, and approved motorized activities.			X	X	X

Management Action 1 Project Criteria: In general, projects with a small footprint that would benefit from maintenance of wilderness characteristics and are compatible with other resource objectives could be approved. The criteria that would be considered for proposed projects within lands managed to maintain wilderness characteristics are listed below.

- Need for project to protect, manage, and/or conserve natural and cultural resources.
- Opportunity to manage and control public use or provide for public safety.
- Opportunity to restore or enhance natural, cultural, or visual resources and meet resource objectives.

- Long-term effect on naturalness and resources.
- Ability to restore to its previous natural state after the project is completed.
- Size and scale of the project.
- Compatibility with the specified VRM zone and recreation settings.
- Loss of opportunity for solitude and primitive recreation.
- Potential for use to be accommodated outside of the area.

When approved, projects would be completed using the least impacting methods that can be reasonably used to accomplish the project, considering resource effects as well as labor effort and cost, including design for the facility to blend into the landscape; consideration of site selection and use of a low profile; design facilities that would require minimal maintenance; and use of BMPs to minimize surface and vegetation disturbance during construction. When completed, a restoration plan would be implemented to actively restore disturbed areas.

2.15 CULTURAL RESOURCE MANAGEMENT

The management of cultural resources on BLM land must be in compliance with several Federal laws, including the Antiquities Act of 1906; NHPA, as amended; NEPA of 1969; EO 11593, "Protection and Enhancement of the Cultural Environment"; FLPMA of 1976; the American Indian Religious Freedom Act of 1978; the Archaeological Resource Protection Act of 1979; the Native American Graves Protection and Repatriation Act of 1990; EO 13007, "Indian Sacred Sites"; EO 13175, "Consultation and Coordination with Indian Tribal Governments"; and EO 13287, "Preserve America". In addition, the YFO manages its cultural resources according to the BLM *Manual* 8100 series and Arizona BLM Handbooks H-8110, *Guidelines for Identifying Cultural Resources* and H-8120, *Guidelines for Protecting Cultural Resources*.

2.15.1 ALTERNATIVE A, NO ACTION

YFO would continue to manage cultural resources for their cultural values. Sixteen cultural resource sites and areas identified in the 1987 Yuma District RMP would continue to be managed under the "Conservation for Future Use" category, i.e., preserved in place. The locations of these sites and areas are sensitive and were identified in a confidential document separate from the 1987 Yuma District RMP. Some of these sites and areas were withdrawn by Reclamation and therefore are segregated from mineral entry and development.

Management Action

- Certain significant sites and areas would be protected and preserved for future use as funds become available.

2.15.2 MANAGEMENT COMMON TO ALTERNATIVES B, C, D, AND THE PROPOSED PLAN

Desired Future Conditions

- Identify, preserve, and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations.
- Maintain viewsheds of important cultural resources whose settings contribute significantly to their scientific, public, traditional, or conservation values.
- Provide research opportunities on cultural resources that would contribute to our understanding of the ways humans have used and influenced the landscape.
- Manage historic trails, including the Anza Trail, Butterfield Overland Mail Route, Gila Trail, and Mormon Battalion Trail, to realize their educational, recreational, and scientific values.
- Enhance public understanding of, and appreciation for, cultural resources through educational outreach and heritage tourism opportunities.

Management Actions

- Implement protection measures to stop, limit, or repair damage to sites. A variety of protection measures described in BLM *Manual* 8140 may be used to protect the integrity of sites at risk such as signs, fencing or barriers, trash removal, target shooting closures, erosion control, backfilling, repairing, shoring up, or stabilizing structures, restricting uses and access, and closures.
- Design and maintain facilities to preserve the visual integrity of cultural resources, settings, and cultural landscapes consistent with VRM objectives established in the RMP.
- Where feasible, acquire properties adjacent to public lands through donation, exchange, or purchase that contain significant cultural resources including, but not limited to, those properties eligible for inclusion on the NRHP.
- Within all proposed SCRMAs, prohibit motorized vehicles from pulling off 100 feet on either side of the centerline from designated routes. Motorized use shall remain within the route with reasonable use of the shoulder and immediate roadside for vehicle passage, parking/overnight camping, and emergency stopping.
- Recommend SCRMAs be withdrawn from mineral entry should Reclamation relinquish their existing withdrawal.

Administrative Actions

- Restrict public information about the locations of cultural resource sites that are not allocated to Public Use, as required by law and regulation.
- Establish collaborative research partnerships with academic institutions, professional and non-profit organizations, and vocational organizations.

- Complete Class II (sample) and Class III (intensive) field inventories to identify and record cultural resource sites, in accordance with Section 110 of the NHPA. Inventory would focus on the following areas:
  - SCRMAs and other areas with predicted cultural resource sensitivity, and
  - Areas where cultural resource sensitivity is unknown because of a lack of previous field inventory.
- Maintain an annual monitoring program that focuses on the condition of cultural resources in the Public Use, Traditional Use, and Conservation for Future Use categories. Develop partnerships with organizations like the Arizona Site Steward Program to achieve monitoring goals.
- Ensure that all proposed undertakings and authorizations are reviewed and conducted in compliance with applicable Federal laws including Section 106 of the NHPA.
- Continue to coordinate and consult with Native American tribes to identify places of traditional importance in accordance with BLM *Manual* 8120.
- Verify that project designs and proposed activities seek to avoid disturbing or removing Native American human remains and associated items.
- Accommodate requests by Native American tribes for use of, and access to, sacred sites and other places of traditional cultural importance that are identified through government-to-government consultation.
- Monitor cultural resource sites for adverse impacts resulting from increased visitation, and implement protection measures as appropriate, including restricting visitor access or group tour size, establishing a permitting system for large groups, or implementing physical protection measures as needed to protect the resource.
- Follow guidance developed by the BLM – SHPO Cultural Resources Data Sharing Partnership (CRDSP). Ensure that YFO's cultural resources information is entered into AZSITE database and the California Historical Resources Information System, as appropriate.

2.15.3 ALLOCATION TO USE CATEGORIES

BLM evaluates cultural resources according to their current and potential uses. Cultural properties and classes of cultural properties that are known and projected to occur in the planning area are allocated to one or more of the following use categories: Scientific Use, Public Use, Traditional Use, Conservation for Future Use, Experimental Use, and Discharged from Management. Suitable uses for cultural properties are determined based on the properties' characteristics, condition, setting, location, accessibility, perceived values and potential uses. Category allocations are used to determine appropriate mitigation and treatment options for cultural properties that are presently known and for those discovered in the future. A site may be allocated to more than one use category, and category allocations are reevaluated and revised, as appropriate, when circumstances change or new data become available.

Areas on the landscape containing cultural resources that are particularly important for Public Use, Scientific Use, Traditional Use, or other uses as defined in BLM *Manual* 8110.4 would be

allocated as SCRMAs. The primary purpose of these categories is to differentiate some portions of a planning area from others in terms of cultural resource values. SCRMAs would be considered priority areas for future cultural resource inventory (NHPA Section 110 surveys) and site documentation. Additional areas would be added to the list of SCRMAs as they are identified. SCRMAs may increase or decrease in acreage based upon new information.

Management of SCRMAs reflects and supports the primary values for which the areas are allocated. While the primary focus of a SCRMA is for a particular use, individual sites within the SCRMA may be managed for any of the six use categories, as appropriate. The principal use categories for a SCRMA may be reevaluated and revised when circumstances change or new data becomes available.

A. SCIENTIFIC USE

Cultural sites and SCRMAs are allocated to Scientific Use based on the following criteria: significance and uniqueness of sites; potential to contribute toward scientific understanding; capability of current available scientific methods to achieve research goals; appropriate research proposal that would further scientific understanding or resource management; and existing threats to sites, including vandalism, erosion processes, or other types of disturbance.

Desired Future Condition

- Cultural properties in this category would be protected until land use conflicts or research in the public interest makes it necessary or advisable to subject them to scientific study.

Management Actions

- Consider and authorize studies using currently available research methods, including methods that would result in the properties' alteration or destruction, on a case-by-case basis.
- Permit scientific and historical studies by qualified researchers at selected sites allocated to Scientific Use.

Administrative Actions

- Use historic contexts and research designs to provide guidance for scientific studies.
- Assign highest priority for study to sites that are threatened with damage from human activities or natural processes, areas of scientific interest, sites eligible for the NRHP, and areas where research may inform management actions.
- Establish collaborative research partnerships with academic institutions, professional and nonprofit organizations, and vocational organizations.
- Provide opportunities for and encourage Tribal participation in research.

B. PUBLIC USE

Cultural sites and SCRMAs are allocated to Public Use based on the following criteria: presence of aboveground features, such as structures or rock art, landscape characteristics, or other features that are of interest to the public and are amenable to interpretive development; the condition of the site and the feasibility of treating or stabilizing areas to withstand visitation; accessibility to travel routes; visitor safety; compatibility of other land uses and site values, such as traditional use by Native Americans; feasibility of regular inspections by BLM staff and volunteers; and partnership opportunities for interpretive and educational projects.

Cultural properties currently managed for public use in the YFO are the Blythe Intaglios Complex in the Big Marias ACEC, the Fisherman Intaglio, the Sears Point ACEC interpretive area, and historic trails such as the Anza Trail, the Butterfield Overland Mail Route, the Gila Trail, and the Mormon Battalion Trail. Other properties considered appropriate for Public Use include the Dripping Springs site and the Tyson Wash petroglyphs.

Desired Future Condition

- Cultural properties managed for Public Use would be protected and developed as interpretive exhibits in place, or for related educational and recreational uses by members of the general public.

Management Actions

- Map and document cultural properties before interpretive development for Public Use, to the extent necessary to preserve archaeological data, plan for interpretive facilities, provide a baseline condition assessment for monitoring changes resulting from visitor use, and complete interpretive plans.
- Surface occupancy for discretionary actions, including but not limited to oil and gas leases, mineral material disposals, and ROWs, would generally not be authorized. Installation of facilities to protect, interpret, or manage resource values would be allowed.
- Implement appropriate developments necessary for site protection and interpretation, including but not limited to installing registration boxes and interpretive signs; establishing non-motorized trails, including hardened walking trails within ¼ to ½ mile distance from sites; closing and converting to hiking trails or rehabilitating existing vehicle routes in close proximity to the site; and producing fact sheets or brochures.
- Implement actions designed to stabilize, repair, and maintain cultural properties in good condition.
- Authorize commercial tour operators on a case-by-case basis. Include stipulations in SRPs to ensure that commercial tour operations would not damage cultural resources.

Administrative Actions

- Provide opportunities for Tribal participation in interpretation.
- Promote heritage tourism at selected sites, and cooperate with Native American tribes, other agencies, and organizations on heritage tourism projects that benefit local economies.

- Require commercial tour operators to provide appropriate educational information on archaeological site etiquette and resource conservation to their customers if cultural properties are included on the tour. Require tour operators to report any vandalism or damage to sites.

C. TRADITIONAL USE

Cultural sites and SCRMAs managed for Traditional Use are limited to those identified by Native American tribes and other social or cultural groups as important for maintaining their cultural identity, heritage, or well-being.

Desired Future Condition

- Cultural properties allocated to this category would be managed for long-term preservation to accommodate the needs of Native American tribes and other groups for which these places are important.
- Prevent physical damage or intrusions at sites that might impede their use by religious practitioners.
- Develop specific management for sites managed for traditional uses in consultation with the Native American tribes to which they are culturally important.

Management Actions

- Stabilize, fence, or otherwise manage significant sites or features to protect the values ascribed to these sites by Native American tribes.
- Surface occupancy for discretionary actions, including but not limited to oil and gas leases, mineral material disposals, and ROWs, would generally not be authorized. Installation of facilities to protect, interpret, or manage resource values would be allowed.
- Minimize direct and indirect impacts to cultural values pursuant to applicable cultural resource laws and regulations if land use actions cannot be redesigned to avoid culturally sensitive locations.

Administrative Actions

- Review requests for vehicular access to sacred areas not normally open to vehicles and consider authorizing such use on a case-by-case basis if Native American tribes identify such areas in the future.
- Work and coordinate with Native American tribes to select harvesting areas and allow noncommercial (personal use) collection of medicinal herbs, ceremonial herbs, other vegetation, and/or minerals for traditional or ceremonial use.
- Identify sacred sites in consultation with Native American tribes.
- Keep the locations of sacred sites and other places of traditional or religious importance to Native American tribes confidential to the extent allowed by law.

D. CONSERVATION FOR FUTURE USE

Cultural sites and SCRMAs allocated to the Conservation for Future Use category are of singular historic importance, architectural interest, or cultural importance. Their unusual significance makes them unsuitable for scientific or historical study that would result in their physical alteration.

Desired Future Condition

- Cultural properties in this category would be managed to maintain their present condition or setting until conditions are met in the future that would make them available for other uses.

Management Actions

- Segregate cultural properties in this category from all other land or resource uses, including cultural resource uses that would threaten their present condition or setting.
- Implement actions designed to preserve cultural properties and maintain them in good condition.
- Surface occupancy for discretionary actions, including but not limited to oil and gas leases, mineral material disposals, and ROWs, would generally not be authorized. Installation of facilities to protect, interpret, or manage resource values would be allowed.
- Minimize direct and indirect impacts to cultural values pursuant to applicable cultural resource laws and regulations if land use actions cannot be redesigned to avoid culturally sensitive locations.

Administrative Actions

- Conserve sites for the future until specified provisions were met such as the discovery of new information about the site, the development of new scientific techniques capable of fully realizing the research potential of the site, or damage to the site's integrity from vandalism or natural processes.

E. EXPERIMENTAL USE

Cultural sites and SCRMAs allocated to the Experimental Use category are those suited for controlled experimental studies that would result in better management of other cultural properties.

Desired Future Condition

- Cultural properties in this category would be available for studies that would aid in the management of other cultural properties, including studies that would result in the properties' alteration or destruction.

Administrative Actions

- Consider studies such as testing and measuring the rate of natural or human-caused deterioration, testing the effectiveness of certain protection measures, and testing the effects of fire.
- Implement studies that would develop new research or interpretation methods or would generate similar kinds of practical management information, weighing the benefits of specific information to be gained versus the loss of cultural attributes or data that may occur during the experiment or study.
- Do not apply experimental study to cultural properties with strong research potential, traditional cultural importance, or good public use potential if it would significantly diminish those values.

F. DISCHARGED FROM MANAGEMENT

Cultural properties Discharged from Management are limited to those having no remaining information potential, no traditional values, and no identifiable use. Cultural properties would be allocated to this category only on a case-by-case basis after inspection and recordation in the field, and only after complying with Section 106 of the NHPA. If a site is identified through government-to-government consultation as having traditional use values, then the site would not be appropriate for this use category.

Desired Future Condition

- Other land uses would take precedence when managing these properties, including land uses that would further diminish the properties' integrity.

Administrative Actions

- Record cultural properties in this category in the field and retain them in the inventory.

2.15.4 SPECIAL CULTURAL RESOURCE MANAGEMENT AREAS

Proposed SCRMAs by alternative are shown below in Table 2-29 and Maps 2-12a (Alternative B), 2-12b (Alternative C), 2-12c (Alternative D), and 2-12d (the Proposed Plan). Appendix 2-F provides a more detailed definition of the new SCRMA allocation.

Table 2-29
SCRMAs by Alternative

Proposed Special Cultural Resource Management Areas	Alternatives (BLM acres)				
	A[1]	B	C	D	E
Scientific Use					
Cibola Valley	0	0	4,700	4,700	4,700
Laguna Mountains	0	0	2,700	2,700	2,700
Ligurta Area	0	0	4,800	4,800	4,800
Traditional Use					
Limitrophe	0	CMA[3]	1,400	ACEC[2]	CMA[3]

Table 2-29
SCRMAs by Alternative (cont.)

Proposed Special Cultural Resource Management Areas	Alternatives (BLM acres)				
	A[1]	B	C	D	E
Traditional Use and Conservation for Future Use					
Muggins Mountains Terraces	0	4,300	4,300	4,300	4,300
Sears Point Mesas	0	10,900	ACEC[2]	ACEC[2]	ACEC[2]
Walters Camp	0	0	1,600	ACEC[2]	1,600
Conservation for Future Use					
Big Maria Terraces	0	4,700	4,700	ACEC[2]	4,700
Mittry Lake	0	0	1,000	1,000	1,000
North Gila Mountains	0	0	1,100	1,100	1,100
Palo Verde Point Area	0	1,300	1,300	1,300	1,300
Senator Wash North	0	0	2,300	2,300	2,300
Total SCRMA Acreage	0	21,200	29,900	22,200	28,500

[1]Sixteen cultural resource sites and areas were identified in the 1987 Yuma RMP.
[2]See the Special Designations section for descriptions of, and management prescriptions for, ACECs.
[3]See Coordinated Management Area section for descriptions of, and management prescriptions for, CMAs.

A. BIG MARIA TERRACES SCRMA

The Big Maria Terraces SCRMA is 4,700 acres and is included in Alternatives B, C, and the Proposed Plan. This proposed SCRMA is bounded by the existing 4,485-acre Big Marias ACEC to the south, the CRIT reservation to the east, the Palm Springs Field Office to the west, and the Lake Havasu Field Office to the north. This portion of the YFO on the west side of the Colorado River has a rare density of intaglios and other desert pavement features that extends across the terraces above the river floodplain. Together with the intaglio features present inside the existing Big Marias ACEC boundaries, this landscape is currently recognized as the single greatest concentration of intaglio and geoglyph sites in North America. This area needs proactive management to prevent additional impacts to the desert pavement landscape from recreational use, particularly damage from unauthorized OHV tracks.

B. CIBOLA VALLEY SCRMA

The Cibola Valley SCRMA is 4,700 acres and is included in Alternatives C, D, and the Proposed Plan. This proposed SCRMA is located on the east side of the Colorado River, in the vicinity of the Town of Cibola, Arizona. The proposed SCRMA contains a high concentration of indigenous cultural features, including cleared areas in the desert pavement, rock alignments, circular mounds, trail networks, lithic scatters, plus some intaglio and petroglyph sites. The cultural sites in this proposed SCRMA require proactive management due to increased development and recreational use in this area.

C. LAGUNA MOUNTAINS SCRMA

The Laguna Mountains SCRMA is 2,700 acres and is included in Alternatives C, D, and the Proposed Plan. It is located within the west and south foothills of the Laguna Mountains, near the

confluence of the Colorado and Gila rivers. The landscape of this area was highly used by indigenous peoples, and is covered primarily by traces of habitation such as extensive low density lithic scatters, cleared areas in the desert pavement, rock features, ceramic scatters, and a trail network. There are also some known petroglyph sites of importance in the region. The cultural sites in this proposed SCRMA require proactive management due to increased development and recreational use in this area.

D. LIGURTA AREA SCRMA

The Ligurta Area SCRMA is 4,800 acres and is included in Alternatives C, D, and the Proposed Plan. This proposed SCRMA is located between the Gila River to the east and the Gila Mountains to the west, in the vicinity of Ligurta, Arizona. Known indigenous cultural features in this area include rock features, dance patterns, many cleared areas in the desert pavement and a trail network. The cultural sites in this proposed SCRMA require proactive management due to the increasing amount of development and recreational use in this area.

E. LIMITROPHE SCRMA

The Limitrophe SCRMA is 1,400 acres and is included in Alternative C. This proposed SCRMA extends along the lower Colorado River from the Northerly International Boundary (1.1 miles north of Morelos Dam) downriver to the Southerly International Boundary with Mexico at San Luis, Arizona. This International Boundary area has been identified by certain Native American tribes as containing important natural and cultural resources with traditional use values. Native American tribes use this area for Tribal education, gathering, hunting and fishing; collection of mesquite wood for funerary and construction purposes; collection of willow for basket materials; and possibly collection of clay used for pottery making. This proposed SCRMA is internationally significant because it is a landscape of importance to Native Americans living on both sides of the border, in the U.S. and Mexico. It is a cultural landscape necessary for the continuation of traditional practices based on the Colorado River.

F. MITTRY LAKE SCRMA

The Mittry Lake SCRMA is 1,000 acres and is included in Alternatives C, D, and the Proposed Plan. This proposed SCRMA is located along the south and east sides of Mittry Lake, within the existing Mittry Lake CMA. This proposed SCRMA has some important indigenous artifact scatters, with a diversity of lithic materials and ceramic types and a potential for subsurface deposition that is not common for the YFO area, plus some known petroglyphs. The cultural sites in this proposed SCRMA require proactive management, due to their close proximity to intensive recreational use in the vicinity of Mittry Lake.

G. MUGGINS MOUNTAINS TERRACES SCRMA

The Muggins Mountains Terraces SCRMA is 4,300 acres and is included in Alternatives B, C, D, and the Proposed Plan. This proposed SCRMA is located along the south side of the Muggins Mountains, in the foothills above the Gila River floodplain in the vicinity of Wellton, Arizona.

This area was extensively used by indigenous peoples, with petroglyph boulders, cleared areas in the desert pavement, trail networks, lithic scatters, and rock alignments and other rock features in evidence along the desert pavement terraces. This area needs proactive management to prevent additional impacts to the desert pavement landscape from increased recreational use, particularly damage caused by unauthorized OHV tracks. See Travel Management and Recreation Management sections for additional management prescriptions specific to this proposed SCRMA.

H. NORTH GILA MOUNTAINS SCRMA

The North Gila Mountains SCRMA is 1,100 acres and is included in Alternatives C, D, and the Proposed Plan. This proposed SCRMA is located along the northern edge of the Gila Mountains, in the foothills above the south side of the Gila River. This area is known for its density of desert pavement features, including intaglios, pebble mounds, cleared areas, rock rings, rock alignments, and an extensive trail network. The indigenous cultural sites in this proposed SCRMA require proactive management due to increased development and recreational use in this area.

I. PALO VERDE POINT AREA SCRMA

The Palo Verde Point Area SCRMA is 1,300 acres and is included in Alternatives B, C, D, and the Proposed Plan. This proposed SCRMA is located on the east side of the Palo Verde Mountains, in the vicinity of Palo Verde, California. This proposed SCRMA is situated on the west side of the Colorado River above the floodplain and is unique for its relatively pristine condition, with the desert pavement virtually undisturbed compared with other areas in the planning area. Consequently, the cultural resources in this proposed SCRMA are in superior condition with less human-caused damage. Traces of indigenous use in this area include important intaglio sites, an extensive petroglyph site, plus trail networks, rock alignments, cleared areas in the desert pavement, and widespread lithic scatters. The cultural landscape in this area requires proactive management to retain the undisturbed character of the resources.

J. SEARS POINT MESAS SCRMA

The Sears Point Mesas SCRMA is 10,900 acres and is included in Alternative B. This proposed SCRMA surrounds the existing Sears Point ACEC, with its boundary generally following the Gila River floodplain and the volcanic landscape that is typical of the Sears Point area. This proposed SCRMA area contains extensive cultural sites that are similar to the features found within the existing 3,700-acre Sears Point ACEC boundaries, including petroglyph panels, traces of indigenous habitation such as extensive artifact scatters, and an established trail network.

K. SENATOR WASH NORTH SCRMA

The Senator Wash North SCRMA is 2,300 acres and is included in Alternatives C, D, and the Proposed Plan. This proposed SCRMA is located in California adjacent to the Senator Wash Reservoir, bounded by the Colorado River to the east and the El Centro Field Office to the west.

Indigenous cultural resource sites known in this area consist of rock alignments and other rock features, trails, and an intaglio site. The cultural sites in this proposed SCRMA area require proactive management, due to their close proximity to intensive recreational use in the vicinity of the Senator Wash Reservoir.

L. WALTERS CAMP SCRMA

The Walters Camp SCRMA is 1,600 acres and is included in Alternative C and the Proposed Plan. This proposed SCRMA is located on the west side of the Colorado River, between the Imperial and Cibola NWRs in California. There is extensive evidence of year-round use by indigenous peoples throughout the area, with important intaglio sites, desert pavement features such as cleared areas and rock alignments, and artifact scatters situated across the landscape. In addition, the sacred Xam Kwitcam migratory trail (a path that begins at AviKwame, the mythical site of Yuman creation north of Needles, California and ends at Yuma, Arizona) is believed to cross through this important area (von Werlhof 2004). Proactive management is needed to protect the cultural resources in this proposed SCRMA from increased recreational use and OHV traffic.

2.16 PALEONTOLOGICAL RESOURCE MANAGEMENT

Paleontological resources found on public lands are recognized by BLM as constituting a fragile and nonrenewable scientific record of the history of life on earth. They therefore represent an important component of America's natural heritage.

BLM manages paleontological resources principally under the following authorities: BLM Manual 8270—*Paleontological Resources Management*; BLM Handbook H-8270-1—*General Procedural Guidance for Paleontological Resources Management*, FLPMA of 1976; NEPA of 1969; Secretarial Order 3104; the Federal Cave Resources Protection Act of 1988; and other various laws and regulations.

All lands within the planning area would be classified as high, moderate, or low sensitivity for paleontological resources, based on their potential to contain vertebrate fossils or noteworthy occurrences of invertebrate or plant fossils. These classifications would follow the guidance outlined in BLM *Manual* 8270 and BLM *Handbook* H-8270-1. Classifications would be based on future inventory of geological units and would be accomplished through adaptive management and plan maintenance.

Desired Future Conditions

- Protect and conserve significant paleontological resources as they are discovered on public lands.
- Manage paleontological resources in ways that prioritize research needs, facilitate educational and recreational needs, and protect important sites.

- Develop specific objectives and management actions for fossil localities, when paleontological resources are discovered in the planning area.

Management Actions

- Evaluate paleontological resources as they are discovered, considering their scientific, educational, and recreational values. Identify appropriate objectives, management actions, allowable uses, and allocations for fossil localities as they are found.
- Restrict the collection of all vertebrate fossils, and noteworthy invertebrate and plant fossils to legitimate scientific or educational uses in accordance with permitting procedures.
- Ensure that common invertebrate and plant fossils are available for recreational collecting.

Administrative Actions

- Develop a paleontology sensitivity map according to the procedures outlined in BLM *Manual* 8270 and BLM *Handbook* H-8270-1. All land use actions with a potential to impact vertebrate fossils or noteworthy occurrences of invertebrate or plant fossils would be screened against this map.
  - **Low Sensitivity Areas:** Assessment or mitigation for proposed land use authorizations would not be required except in very rare circumstances.
  - **Moderate Sensitivity Areas:** BLM-authorized surface-disturbing activities may require assessment to determine further courses of action. A field survey by a qualified paleontologist may be required. Management prescriptions for resource preservation and conservation through controlled access or special management designation would be considered.
  - **High Sensitivity Areas:** An assessment by a qualified paleontologist prior to authorizing land uses that could impact vertebrate fossils and/or uncommon invertebrate fossils would be required. A records search, inventory, monitoring, and/or mitigation would be required as appropriate before and/or during these actions.
- Establish agreements and partnerships with interested organizations, such as museums, scientific organizations, agencies, or universities to support inventory, evaluation, recordation, mitigation, protection, and management of paleontological resources.
- Priority areas for inventory would be areas that are most likely to include significant paleontological resources, that are relatively accessible to the public, and/or that are vulnerable to damage or loss from land use activities.

2.17 AIR, WATER, AND SOIL MANAGEMENT

2.17.1 AIR RESOURCE MANAGEMENT

FLPMA and the CAA of 1970 and Amendments of 1977 and 1990 prohibit BLM or any Federal land management agency from conducting, supporting, approving, licensing, or permitting any activity on Federal land that does not comply with all applicable local, State, and Federal air

quality laws, statutes, regulations, and implementation plans. In support of these regulations, a program has been developed that provides benefits to air quality and other resources by decreasing air pollutant concentrations, increasing visibility, and decreasing atmospheric deposition. Adherence to air quality regulatory programs through coordination with other Federal and State agencies is a key to air quality management success.

Desired Future Conditions

- Maintain or improve air quality as established by the National Ambient Air Quality Standards and Arizona and California air quality standards.
- Identify desired outcomes and area-wide criteria or restrictions, in cooperation with the appropriate air quality regulatory agency, that apply to emission-generating activities, including the CAA's requirements for compliance with:
  - Applicable National Ambient Air Quality Standards (Section 109),
  - State Implementation Plans (Section 110),
  - Control of Pollution from Federal Facilities (Section 118),
  - Prevention of Significant Deterioration, including visibility impacts to mandatory Federal Class I Areas (Section 160 et seq.), and
  - Conformity Analyses and Determinations (Section 176(c))
- Meet particulate matter up to 10 micrometers in size (PM_{10}) standards in the Yuma Non-attainment area.
- Maintain air quality within required standards through cooperative management of emissions with industry, the States of Arizona and California, and Federal agencies. YFO would strive to minimize, within the scope of its authority, any emissions that may cause violations of air quality standards, add to acid rain, or degrade visibility.

Management Actions

- Comply with the State of Arizona laws and regulations for all proposed actions that would contribute to particulate matter emissions in the air as a result of actions taken in this RMP/EIS. Likewise, comply with the State of California laws and regulations regarding particulate emissions. The planning area includes the Yuma PM_{10} Non-attainment Area.
- Continue to take actions to control fugitive dust from Open OHV Management Areas, dry washes, river beds, and construction sites and to prevent non-point source air pollution.

Administrative Actions

- Work closely with counties or States on the development or amendment of State implementation plans.
- Actively support ADEQ and the California Air Resources Board Imperial County Air Pollution Control District regulatory oversight of air resources in the planning area.
- Consult, coordinate, and comply with applicable Tribal, Federal, State, and local air quality regulations, as required by the CAA, EO 12088, and Tribal, Federal, or State implementation plans.

2.17.2 WATER RESOURCE MANAGEMENT

Water resources in the planning area include both surface water and groundwater. Guidance for water resources management is given by BLM *Manual* 7240 and in the *Land Health Standards and Guidelines* (43 CFR 4180). YFO works cooperatively with Reclamation, the USDOI agency responsible for managing, developing, and protecting water and related resources in an environmentally and economically sound manner in the interest of the American public.

Surface waters in the planning area can be divided into watersheds, or portions of the landscape that collect runoff from the surface, concentrate it into channels, and conduct the resulting flow to a definable outlet. The planning area occurs within the Lower Colorado River Basin, which is further divided into smaller watersheds. Watersheds that make up the majority of the planning area include the lower Colorado River–Imperial Reservoir, lower Colorado River below Imperial Reservoir, lower Gila River below Painted Rock Dam (Local Drainage), Tyson Wash, Bouse Wash, and Yuma Desert Area watersheds. Water management applies to these watersheds, as well as the floodplains and riparian areas of the Colorado and Gila Rivers.

Groundwater within the planning area occurs primarily within alluvial basins between fault block mountain ranges. BLM has no direct authority over the groundwater (in basins not adjacent to the Colorado River). Rather, the groundwater resource is managed by the Arizona Department of Water Resources (ADWR). BLM works in cooperation with ADWR to develop the groundwater resource to provide water to BLM grazing lease holders, mineral operators, and to some recreational sites.

Portions of the Parker, Ranegras Plain, Lower Gila, Western Mexican Drainage basins, and the Harquahala Irrigation Non-expansion Area are within the boundary of the planning area.

Desired Future Conditions

General

- Ensure the physical presence and legal availability of surface water and groundwater on public lands.
- Ensure that those waters meet or exceed Federal, Arizona, and California water quality standards for specific uses.
- Ensure that water quality complies with State water quality standards and achieves, or is making significant progress toward achieving, established YFO management objectives such as meeting wildlife and recreational needs.

A. SURFACE WATER

- Identify and protect surface waters from the standpoint of human health concerns, aquatic ecosystem health, or other public uses
- Preserve and enhance stream bank and channel condition.
- Identify area wide use restrictions or other protective measures to meet Federal, Tribal, State, and local water quality requirements.

Management Actions

- Maintain existing proper functioning conditions of watersheds by applying BMPs.
- Prevent or reduce water quality degradation through the application of specific mitigation measures.
- Acquire legally perfected rights to use water from the lower Colorado River in support of YFO programs, including the water needs of the BLM recreation sites, commercial and concession facilities, and wildlife and habitat.
- Continue to maintain or improve water quality in accordance with State and Federal standards. Consult with the appropriate State agencies (ADEQ and others) on proposed projects that may significantly affect water quality. Designate management actions on public land within municipal watersheds to protect water quality and quantity.
- Analyze surface and ground water quality and quantity on a case-by-case basis.

Administrative Actions

- Provide water use reports periodically to Reclamation per agreement.

B. FLOODPLAIN MANAGEMENT

BLM is mandated by EO 11988-Floodplain Management to avoid development or occupancy on the 100-year floodplain wherever possible. The order also requires that BLM's standards and requirements for development in floodplains be consistent with the National Floodplain Insurance Program requirements administered by the Federal Emergency Management Agency. Accepted flood proofing measures and other flood protection measures must be applied to all new construction or rehabilitation of structures and facilities in the floodplain.

EO 11988 applies equally to all Federal land-managing agencies. BLM–Reclamation coordination on floodplain management is described in: a) DM 613 with respect to the lands bordering on the lower Colorado River, and b) in the *Reclamation/BLM Interagency Agreement* of 25 March 1983. BLM would also coordinate floodplain management to not conflict with the projects, obligations, and mission of the USIBWC.

Desired Future Conditions

- Restore and maintain desired plant communities and suitable wildlife habitat for migratory birds, waterfowl, reptiles, big-game mammals, and other desired species within riparian areas and floodplains.
- Maintain hydrologic function between watersheds and main channels of the Colorado and Gila rivers through proper floodplain management.
- Provide ample recreation opportunities on BLM-administered lands within the 100-year floodplain.

Management Actions

- Floodplains and riparian areas administered by BLM along the Colorado and Gila rivers would continue to be managed with priority consideration given to maintenance as wildlife habitat.
- No new agricultural leases would be authorized within the 100-year floodplain of the Colorado and Gila rivers.
- Manage BLM-administered lands within or adjacent to the Colorado River Floodplain for natural resource-based recreational uses compatible with the Desired Future Conditions of wildlife habitat and vegetation communities.
- Allow only those permanent new facilities that can be flood proofed within the 100-year floodplain.
- Existing permanent structures would be allowed to remain in the 100-year floodplain until they are inundated, their useful life is gone, or the present leases expire.
- BLM-administered lands within or adjacent to the Colorado River 100-year floodplain would remain in Federal management and not be made available for disposal.
- No grazing leases would be authorized within the 100-year floodplain of the Colorado or Gila rivers.

Administrative Actions

- Coordinate with Reclamation pursuant to DM 613 on management of BLM-administered lands within the Colorado River Floodplain.
- Coordinate floodplain management with the USIBWC's projects, objectives, and mission.

2.17.3 SOIL RESOURCE MANAGEMENT

Soils in the planning area are associated with a variety of climates, vegetative cover, topography, and geology. Five soil suborders (specific soil types) are found in the planning area (The Nature Conservancy 2004). Almost 90 percent of the planning area consists of aridisols, a soil order (general soil type) of the USDOA NRCS *Soil Classification System*.

Aridisols are commonly found in dry environments that are low in organic matter and rich in deposited salts. Of the remaining 10 percent of the planning area, the largest area consists of Entisols or soils of recent development with no or poorly developed soil horizons. Less than one percent of the planning area consists of badlands, rock outcrops, and water.

The planning area also contains sensitive resources including biological soil crusts, desert pavement, and stabilized sand dunes.

- **Biological soil crusts:** A complex mosaic of cyanobacteria, green algae, lichens, mosses, microfungi, and other bacteria.

- **Desert pavement:** A ground surface consisting of coarse, densely packed, patinated cobbles and gravels that are covered with layers of ferro-manganese deposits and microscopic organisms.
- **Stabilized sand dunes:** A sand-covered landscape that is veiled and stabilized by plant cover, so that the sand is no longer borne away by winds.

Desired Future Conditions

- Maintain or improve soil resource conditions throughout the planning area.
- Manage soils to maintain biological productivity and to minimize erosion.
- Meet Land Health Standard #1, as related to soils, and multiple use objectives per *Land Health Standards* (USDOI BLM 1997a).

Management Actions

- After completion of BLM-authorized surface disturbing activities, disturbed surfaces would be restored to a natural condition as far as possible.
- Restrict vehicular and construction activities when soils are susceptible to a heightened risk of erosion or compaction. Restore areas of excessive surface damage from past activities.
- Incorporate erosion and salinity control measures into projects where appropriate.

Administrative Actions

- Conduct a range-wide soil survey using USDOA NRCS standards to provide information on soil types, erosion risks, and soil vulnerability to disturbances.
- Coordinate with USDOA NRCS.
- Map all sensitive soil resources to facilitate protection of biological soil crusts, desert pavement, and stabilized sand dunes.
- Monitor effects to sensitive soils resulting from OHV use.
- Damage to sensitive soils from land use actions and multiple-use would be minimized and/or avoided to the extent practicable.

2.18 LANDS AND REALTY MANAGEMENT

The Lands and Realty program consists of two distinct parts: land use authorizations and land tenure. The land use authorization segment focuses on public demand requests for ROWs, permits, leases, and easements. Land tenure focuses on disposing of and acquiring lands or interests in lands.

The Lands and Realty program administers public lands within a framework of numerous laws. The most comprehensive of these is FLPMA. FLPMA enables BLM to accomplish a variety of

lands actions, including but not limited to sales, withdrawals, acquisitions, exchanges, leases, permits, easements, and ROWs.

Other applicable laws and regulations are as follows:

- In 1988, FLPMA was amended by the Federal Land Exchange Facilitation Act (102 Stat. 1087). Federal Land Exchange Facilitation Act established uniform rules and regulations for appraisals, procedures, and guidelines for the resolution of appraisal disputes in the exchange process.
- Mineral Leasing Act of 1920 (30 U.S.C. 185) as amended: BLM issues ROWs for pipeline purposes for the transportation of oil, natural gas, synthetic liquid or gaseous fuels, or any refined product produced therefrom pursuant to Section 28 of the Mineral Leasing Act.
- R&PP Act of June 14, 1926 (43 U.S.C. 869 et seq.), as amended: This act is used as a significant tool primarily for providing land to fulfill the need for public services (including, but not limited to, parks, monuments, schools, community buildings, hospitals, sanitary landfills) due to community expansion.
- Airport and Airway Improvement Act of 1982 (49 U.S.C. 2215): This act provides for the conveyance of BLM-administered lands to public agencies for use as airports and airways.
- Federal Highway Acts: Various Federal Highway Acts codified in 23 U.S.C., Sections 17 and 317 were established to build, improve, and maintain the Federal interstate highway system. The current *Interagency Agreement* also applies to lands and realty management.
- Federal Land Transaction and Facilitation Act (114 Stat. 613; 43 U.S.C. 2301 et seq.) of July 25, 2000: This act amended FLPMA to allow retention by the BLM of receipts received from the sale of land or interests in land under Section 203 of FLPMA or conveyance of mineral interest under Section 209(b) of FLPMA provided a LUP was completed prior to July 25, 2000.
- Energy Policy Act of 2005 (42 U.S.C. 15801): Encourages energy efficiency and conservation, promotes alternative and renewable energy sources, reduces the U.S. dependence on foreign sources of energy, increases domestic production, modernizes the electricity grid, and encourages the expansion of nuclear energy.

A summary of proposed lands and realty Management Actions by alternative is presented in Table 2-30 below and Maps 2-13a through 2-13e.

Table 2-30
Lands and Realty Proposed Actions by Alternative

Lands Actions	Alternative				
	A	**B**	**C**	**D**	**E**
Disposal (acres)					
Total Acres	19,100	46,900	10,500	8,200	11,900
Acquisitions					
Lands would be acquired on a case-by-case basis.					
Withdrawal					
Wilderness (AZ/CA) (existing, by law)	167,800	167,800	167,800	167,800	167,800
Big Marias ACEC	2,900*	0	0	2,900*	2,900*
Dripping Springs ACEC	n/a	0	600	600	600
Sears Point ACEC	3,600**	3,600**	4,800	4,800	8,500
Total Acres	174,300	171,400	173,200	176,100	179,800
ROW Corridors					
El Paso Natural Gas	X	X	X		X
Gila Mountains East (ROW 6)		X	X		
Interstate 8		X	X	X	X
Interstate 10	X	X	X	X	X
Palo Verde–Devers	X	X	X	X	X
Palo Verde Mountains Reroute		X	X		X
Parker Blaisdell		X	X	X	X
San Diego Gas & Electric Interconnection	X	X	X		X
San Diego Gas & Electric to I-8				X	
South Muggins (ROW 3)		X	X		
Highway 95 California		X	X		X
Total Corridors	4	10	10	5	8
Total Miles	300	500	500	400	465
Communications Sites					
Airway Beacon	X	X			
Big Maria	X	X	X	X	X
Black Rock Hill		X	X	X	X
Cunningham	X	X	X	X	X
Guadalupe		X	X	X	X
Kofa		X			
Laguna Mountain (High Power)		X	X		X
Mohawk	X	X	X	X	X
Palo Verde Gap		X	X		X
Qwest		X	X		
Salome		X	X	X	X
Stone Cabin	X	X	X	X	X
Telegraph	X	X	X	X	X
Total Sites	6	13	11	8	10
Renewable Energy					
Proposed on a case-by-case basis to meet public demand.					

*BLM would propose to withdraw 2,900 acres in the Big Marias ACEC should Reclamation revoke their existing withdrawal for the area.

**In 1996, Public Land Order 7212 identified 3,600 acres for withdrawal as the Gila River Cultural ACEC. The Public Land Order immediately withdrew approximately 1,700 acres of Federal lands. An additional 1,900 acres of non-Federal lands, within the designated boundary of the ACEC, if acquired by the U.S., would also be by Public Land Order 7212. Through the acquisition of non-Federal lands since 1996, there are currently 2,400 acres of withdrawn BLM lands within the existing Gila River Cultural ACEC.

2.18.1 LAND USE AUTHORIZATIONS

YFO would strive to increase and diversify our nation's sources of both traditional and alternative energy resources, improve our energy transportation network, and ensure sound environmental management in accordance with the President's National Energy Policy. All land use authorizations would adhere to Desired Future Conditions and Management Actions made under other resource management programs in this chapter.

A. WITHDRAWAL

Withdrawal means withholding an area of Federal land from settlement, sale, location, or entry under some or all of the general land laws for the purpose of limiting activities under those laws in order to maintain other public values in the area or reserving the area for a particular public purpose or program; or transferring jurisdiction over an area of Federal land, other than property governed by the Federal Property and Administrative Services Act (40 U.S.C. 472), from one department, bureau, or agency to another department, bureau, or agency (43 CFR 2300). Section 204 of FLPMA authorizes the Secretary of the Interior (delegated to the Director of BLM) to make, modify, extend, or revoke withdrawals but only in accordance with the provisions and limitations of Section 204.

Within the planning area there are existing withdrawn lands for the following Federal agencies: Reclamation, USFWS, Department of the Navy, Department of the Army, Department of the Air Force, and U.S. Border Patrol (see Appendix 2-G). When withdrawn lands are returned to the public domain, YFO would manage them in accordance with the approved LUP decisions for surrounding or adjacent BLM-administered lands.

Lands within Congressionally Designated Wilderness Areas are also withdrawn from all forms of appropriation under the mining laws and from disposition under mineral leasing laws. Prior existing claims or leases with valid existing rights may be developed, though mineral development within wilderness is rare. Within the planning area, 167,800 acres have been withdrawn according to the Wilderness Act of 1964, as amended.

Reclamation Withdrawn Lands

YFO has limited administrative responsibility on approximately 282,000 acres of land along the lower Colorado River that are currently withdrawn from public domain or have been acquired for project purposes by Reclamation. Reclamation withdrew these lands under authority of the Reclamation Act of June 17, 1902 (32 Stat. 388). This authority was repealed by Section 704(a) of FLPMA. "First form" withdrawals embrace lands which may be needed in the construction and maintenance of irrigation projects. The lands withdrawn under first form are removed from the operation of the mining laws and the general land laws. "Second form" withdrawals include lands which are believed to be susceptible to irrigation from a reclamation project. The lands withdrawn under second form are removed from the general land laws, but not the mining laws. Second form withdrawals sometimes allowed for specific land laws, i.e., homestead entry.

BLM's management of Reclamation withdrawn and acquired lands is the subject of an interagency agreement (*Reclamation/BLM Interagency Agreement of 23 March 1983,* or

subsequent revisions) and department-wide guidelines (DM 613 and the Lower Colorado River LUP). YFO would manage surface uses of Reclamation lands in accordance with the agreement and guidelines. In addition, Reclamation is obligated to comply with requirements of NEPA, NHPA, ESA, and other applicable EOs, laws, and regulations in planning and implementing site-specific actions on Reclamation project withdrawn lands.

Current and Proposed Withdrawn Lands

BLM-administered lands currently withdrawn and proposed for withdrawal are shown on Table 2-31 and Maps 2-13a through 2-13e. This includes existing Wilderness of 167,800 acres. Other Federal agency withdrawals are listed in Appendix 2-G.

Desired Future Conditions

- Minimize the amount of land withdrawn and, where applicable, revoke existing withdrawals, if the land is no longer needed for the original purpose of the withdrawal.

Management Actions

- Under Alternative A, continue existing withdrawals including the existing 167,800 acres of Congressionally Designated Wilderness Areas, Big Marias ACEC (2,900 acres), and Sears Point ACEC (3,600 acres), totaling 174,300 acres.
- Under Alternative B, withdrawals include the existing 167,800 acres of Congressionally Designated Wilderness Areas and Sears Point ACEC (3,600 acres), totaling 171,400 acres.
- Under Alternative C, withdrawals include the existing 167,800 acres of Congressionally Designated Wilderness Areas, Dripping Springs ACEC (600 acres), and Sears Point ACEC (4,800 acres), totaling 173,200 acres.
- Under Alternative D, withdrawals include the existing 167,800 acres of Congressionally Designated Wilderness Areas, Big Marias ACEC (2,900 acres), Dripping Springs ACEC (600 acres), and Sears Point ACEC (4,800 acres), totaling 176,100 acres.
- Under the Proposed Plan, withdrawals include the existing 167,800 acres of Congressionally Designated Wilderness Areas, Big Marias ACEC (2,900 acres), Dripping Springs ACEC (600 acres), and Sears Point ACEC (8,500 acres), totaling 179,800 acres.
- In the event that Reclamation relinquishes their second form withdrawal in the Big Marias ACEC, YFO would propose to withdraw 2,900 acres of the ACEC from mineral entry under Alternatives A, D, and the Proposed Plan. The withdrawal would be delineated in a way that does not affect access and use of existing facilities, including mineral material quarries.
- Under all alternatives, continue implementing Public Land Order 7212 by withdrawing additional lands that return to public ownership within the original 1988 Sears Point ACEC boundary.
- Under Alternatives C and D, propose withdrawing an additional 1,200 acres of Federal land within the Sears Point ACEC.
- Under the Proposed Plan, propose withdrawing an additional 4,900 acres of Federal land within the Sears Point ACEC.

- Under Alternatives C, D, and the Proposed Plan, propose withdrawing 600 acres of Federal land within the Dripping Springs ACEC.
- Recommend SCRMAs to be withdrawn from mineral entry, should Reclamation relinquish their existing withdrawal.
- Continue to review existing withdrawals, including other agency withdrawals, periodically to ensure that the reasons for the withdrawal are still valid, and that only the acreage needed is retained in withdrawn status.

Administrative Actions

- Use the appropriate tool for protection of designated ACECs, which could include withdrawal.
- On Federal lands where appropriate, follow the floodplain management practices consistent with EO 11988, Floodplain Management.

B. LEASES/PERMITS/EASEMENTS

Section 302 of FLPMA states "…regulate through easements permits, leases, licenses, published rules, or other instruments as the Secretary deems appropriate, the use, occupancy, and development of the public lands…."

Leases, permits, or easements would be considered and issued under applicable laws and regulations pursuant to regulations found at 43 CFR 2900. Issuance of leases, permits, or easements is a discretionary action. These authorizations may include but are not limited to the following:

- Airport leases
- Recreation and public purposes leases
- 2920 leases, permits, or easements (agricultural leases/permits, film permits, apiary permits, concession leases, etc.)

Public land is subject to application for community expansion needs under a wide variety of public land laws. Community expansion needs would continue to be handled on a case-by-case basis in accordance with the appropriate authority. YFO would authorize the use of Federal lands for community expansion needs including, but not limited to, airports, parks, hospitals, and community centers pursuant to applicable laws and regulations. Appendix 2-H is a guide to stipulations for typical land use authorizations.

Desired Future Conditions

- Meet public demand for leases, permits, and easements.
- Meet community expansion needs.
- Existing residential leasing would be phased out.

Management Actions

- Use R&PP Act leases to meet the needs for community expansion.
- Restrict occupancy within concession sites to 150 days in a calendar year.
- Any authorization determined to be in noncompliance with the terms and conditions would be subject to termination.
- Phase out existing cabin site and residential permits, and remove improvements associated with such permits.
- Prohibit assignment or transfer of cabin site permits.
- Phase out exclusive use of individual sites within concession leases.
- Do not authorize concession leases that allow exclusive use.

Administrative Actions

- Monitor existing and future authorizations for compliance with the terms and conditions of the authorization.

1. Agricultural Leases

YFO would continue to authorize agricultural leases on a case-by-case basis on public lands where appropriate. The transfer or reassignment of agricultural leases would be subject to prior review and approval by BLM. YFO would develop agricultural lease stipulations restricting crop types for purposes of law enforcement and public safety.

Currently, as of June 2007, YFO authorizes 1,528 acres of agriculture leases. This includes 1,300 acres in Arizona and 228 acres in California.

Desired Future Conditions

- Convert lands currently authorized for agricultural purposes that are not renewed to uses that benefit other programs carried out by the YFO, such as development for recreational use or restoration of wildlife habitat.

Management Actions

- Continue to authorize agricultural leases on a case-by-case basis.
- No new agricultural leases would be authorized within the 100-year floodplain of the Colorado and Gila rivers.

Administrative Actions

- The transfer or reassignment of agricultural leases would be subject to review and approval by YFO.
- The issuance of agricultural leases would be contingent on the lessee providing proof of a legal source of water and legal water rights under State water law.

2. Concession Leases

BLM issues concession leases pursuant to FLPMA and in accordance with 43 CFR 2920. Concession leases are authorized for recreation areas for concessionaire, State park, and county park operations to ensure that recreation opportunities are provided for the public. Private enterprises provide services and facilities that are responsive to public needs and are in appropriate intensively developed recreation areas.

Concession leases are considered when necessary to provide developed commercial recreation opportunities in appropriate settings when and where it would not be feasible for BLM or other government agencies to do so. These leases authorize the construction and/or implementation of long-term facilities and services that would require a substantial financial investment by private business or other non-governmental entities.

Desired Future Condition

- Ensure that public lands are available to develop concessions for recreation opportunities to meet the growth of public recreation use on a case-by-case basis.

Management Actions

- Concessions would be managed in accordance with its authorized concession lease including quarterly inspections for compliance with the terms and conditions of the leases.
- Hidden Shores RV Village and Walters Camp would continue to be managed as concessions in accordance with their leases under Alternatives A through the Proposed Plan.
- Restrict occupancy within concessions to no more than 150 days in a calendar year.
- Concession leases found in non-compliance with the terms and conditions of the authorization would be subject to termination.

Administrative Actions

- Monitor concession leases to ensure compliance with the terms and conditions of the authorization.

C. RIGHTS-OF-WAY

The BLM issues authorizations on public lands to qualified individuals, businesses, and government entities pursuant to FLPMA or the Mineral Leasing Act. Title V of FLPMA, as amended, states that BLM is authorized to grant, issue, or renew ROWs over, upon, under or through lands for various uses. The types of uses that would be authorized by ROWs issued pursuant to FLPMA would include, but are not limited to, access roads, power lines, telephone lines, fiber-optic systems, communications facilities, and water and sewer pipelines. The types of uses that would be authorized by ROWs or temporary use permits pursuant to the Mineral Leasing Act are pipelines for the transportation of oil, natural gas, synthetic liquid or gaseous fuels, or any refined product produced therefrom.

User-initiated proposals or applications generate most of the present ROW activity. Inquiries and proposals are received from Federal, State, and local governments and from private individuals and companies interested in acquiring access across or locating facilities on public land. Where applicable, YFO would evaluate these applications for location within approved corridors. YFO would continue to handle proposals on a case-by-case basis and in accordance with decisions established in the RMP.

In order to minimize adverse environmental impacts and the proliferation of separate ROWs, the utilization of ROW Corridors would be required to the extent practical, and each ROW or permit shall reserve to BLM the right to grant additional ROWs or permits for compatible uses on or adjacent to existing ROWs.

Desired Future Condition

- Meet public demand for ROWs on a case-by-case basis.

Management Actions

- Locate new major ROWs in designated corridors, unless an evaluation of the project demonstrates location outside of a designated corridor is the only practicable alternative.
- Avoid special designation areas and environmentally sensitive areas such as SCRMAs and WHAs to the maximum extent possible. Appropriate mitigation would be required when avoidance is not possible.
- Any authorization determined to be in noncompliance with the terms and conditions would be subject to termination.
- All ROWs would meet VRM objectives.

Administrative Actions

- Process applications for ROWs in accordance with all applicable laws, regulations, and policies. Applications must be in conformance with the approved LUP.
- Monitor ROWs for compliance with existing laws and regulations in conformance with their authorization.
- Monitor existing and future authorizations for compliance with the terms and conditions of the authorization.
- Ensure that all new power lines are safe for raptors. Inventory power lines to ensure that they meet established standards as described in BLM *Manual* 2800 and in the *Suggested Practices for Avian Protection on Power Lines* (Avian Power Line Interaction Committee 2006). Inventories of power lines within areas of known high raptor use should be completed first.

1. Right-of-Way Corridors

The range of alternatives in the PRMP/FEIS is required to meet the needs identified in the *Draft West-wide Energy Corridor Programmatic EIS*, to be consistent with the information in the 1992 Western Utility Group's *Western Regional Corridor Study*, and to attempt to meet the local

needs for ROW developments in the planning area. See Table 2-30 and Maps 2-13a through 2-13e for ROW Corridors by alternative.

Desired Future Conditions

- Consolidate major ROWs within approved corridors to minimize resource impacts.
- Designated corridors would be the preferred location for major ROWs.
- Align established corridors with adjacent BLM field office corridors in California and Arizona.

Management Actions

- Under Alternative A, continue ROW Corridor designations including Interstate 10, Palo Verde-Devers, El Paso Natural Gas, and San Diego Gas & Electric Interconnection, totaling four corridors over 300 miles.
- Under Alternative B and C, designate the El Paso Natural Gas, Gila Mountains East (ROW 6), Interstate 8, Interstate 10, Palo Verde-Devers, Palo Verde Mountains Reroute, Parker Blaisdell, San Diego Gas and Electric Interconnection, South Muggins (ROW 3), and Highway 95 California ROW Corridors, totaling 10 corridors over 500 miles.
- Under Alternative D, designate the Interstate 8, Interstate 10, Palo Verde-Devers, Parker Blaisdell, and San Diego Gas & Electric to I-8 ROW Corridors, totaling five corridors totaling 400 miles.
- Under the Proposed Plan, designate the El Paso Natural Gas, Interstate 8, Interstate 10, Palo Verde-Devers, Palo Verde Mountains Reroute, Parker Blaisdell, San Diego Gas and Electric Interconnection, and Highway 95 California ROW Corridors, totaling eight corridors over 465 miles.
- All designated major ROW Corridors would be one mile in width.
- To the extent possible, locate new ROWs within or parallel to existing ROWs or ROW Corridors to minimize resource impacts.
- Locate new major utility facilities in designated ROW Corridors, unless an evaluation for the proposed project shows that the location outside of the designated corridor is the only practicable route.
- New utility facilities within ROW Corridors would avoid impacts to natural and cultural resources within ACECs and SCRMAs to the greatest extent possible. If impacts could not be avoided, mitigation would be required.

Administrative Actions

- Corridor designations would be consistent with the *Western-wide Energy Corridor Programmatic EIS*.

2. Communications Sites

Communications sites are generally limited by YFO to designated areas with existing facilities on mountain peaks. BLM communications sites accommodate the wireless systems referred to in the Telecommunications Act of 1996 as well as many other uses, including, but not limited to, AM/FM broadcast facilities, commercial mobile radios, private mobile radios, and microwaves on designated communications sites.

There are 11 existing communications sites in the planning area, six of which are currently designated as shown in Alternative A. The number of communications sites varies by alternative as follows: Alternative B proposes 13 sites; Alternative C proposes 11 sites; Alternative D proposes eight sites; and the Proposed Plan proposes 10 sites. A high-power communications site is proposed in Alternatives B, C, and the Proposed Plan. There are three communications sites proposed in Alternatives B, C, and the Proposed Plan that are existing but not designated in Alternative A (Black Rock Hill, Guadalupe Mountain, and Salome). A fourth site (Kofa) is considered in Alternative B and proposed for termination in all other alternatives. A summary of communications sites by alternative is presented in Table 2-30 and Maps 2-13a through 2-13e.

Desired Future Conditions

- Consolidate single facility sites into more efficient communications facilities through site management plans.
- Meet public demand for high-power facilities by establishing a high-power communications site.

Management Actions

- Terminate the Kofa and Airway Beacon communications sites in Alternatives C, D, and the Proposed Plan.
- Propose to designate the Qwest site under Alternatives B and C.
- Propose to designate the Laguna Mountains site (high-power site) under Alternatives B, C, and the Proposed Plan.
- Establish a communications site along the California State Highway 78 route which would be the Palo Verde Gap Low Power Communications Site in Alternatives B, C, and the Proposed Plan.
- Applications for new communication use facilities outside designated communications sites would be considered on a case-by-case basis. Co-location and subleasing would be emphasized under all alternatives.
- New designated communications sites would have site management plans completed prior to authorizing new facilities and/or uses at the site.
- Non-designated communications sites may require communications site plans prior to authorization as determined by the BLM authorized officer.

3. Renewable Energy

The potential for renewable energy in the planning area is based on environmental, physical, and economic criteria, in conjunction with policy directives. BLM's general policy is to facilitate environmentally responsible commercial development of solar energy projects on public lands and use solar energy systems on BLM facilities where feasible.

The Energy Policy Act of 2005 was established to encourage energy efficiency and conservation, promote alternative and renewable energy sources, reduce the U.S. dependence on foreign sources of energy, increase domestic production, modernize the electricity grid, and encourage the expansion of nuclear energy. BLM, as the manager of more public land than any other Federal agency, plays a key role in implementing the Energy Policy Act of 2005. Some of the BLM actions that are affected by the Energy Policy Act of 2005 are wind energy, geothermal, hydropower, oil and gas leasing, and split-estate Federal oil and gas leasing.

Regulations applicable to solar arrays on public lands in the planning area include FLPMA and 43 CFR 2800. Solar technologies use the sun's energy to provide heat, light, hot water, electricity, and even cooling for homes, businesses, and industry. Types of solar technology include photovoltaic (solar cell) systems, concentrating solar systems, passive solar heating and daylighting, solar hot water, and solar process heat and space cooling.

Regulations applicable to wind energy development on public lands in the planning area include FLPMA, 43 CFR 2800, and other applicable laws, regulations, and policies. As stated in EO 13212, the Energy Project Streamlining process requires expediting production, transportation, and conservation of energy. The *Final Programmatic EIS on Wind Energy Development on BLM-administered Lands in the Western United States* (USDOI BLM 2005b) was completed by BLM in June 2005. The *Programmatic EIS* identified four small areas of high potential within the planning area. Current requirements for processing applications for wind energy site testing and monitoring, and commercial wind energy development projects are set forth in current BLM policy guidance.

Desired Future Conditions

- Provide for the production and distribution of renewable energy.
- Encourage the use of public lands for production of renewable energy.
- Authorize the growth, production, or conversion of biomass materials to energy products on a case-by-case basis, pursuant to applicable laws, regulations, and policies and in accordance with the approved LUP.

Management Actions

- Surface occupancy of renewable energy facilities would not be placed in special designation areas or SCRMAs.
- Solar or wind generating facilities would not be allowed in VRM Classes I and II.
- Wind generating facilities would not be allowed under military training routes.

Administrative Actions

- Process applications for commercial renewable energy facilities as ROWs or lease authorizations on a case-by-case basis.
- Monitor all renewable energy facility authorizations for compliance with the terms and conditions of their authorization.

D. TRESPASS

Trespass means using, occupying, or developing public lands or their resources without a required authorization or in a way that is beyond the scope and terms and conditions of the authorization. Trespass is a prohibited act which includes acts or omissions causing unnecessary or undue degradation to the public lands or their resources. There are two kinds of trespass, willful and non-willful. Willful trespass is voluntary or conscious trespass and includes trespass committed with criminal or malicious intent. Non-willful trespass is trespass committed by mistake or inadvertence (43 CFR 2800, 2900, 9200). Samples of trespass include but are not limited to illegal dump sites, unauthorized construction of facilities, structures, roads, and residential and agricultural use. The YFO was historically established to resolve numerous trespasses along the lower Colorado River.

Desired Future Conditions

- Eliminate the unauthorized use of public lands.

Management Actions

- Resolve existing unauthorized uses of public land through methods including, but not limited to, termination, approval by the appropriate type of authorization, or litigation.

Administrative Actions

- Monitor public lands for the occurrence of trespass.
- Evaluate all trespass for damage to natural and cultural resources particularly pursuant to the Archaeological Resources Protection Act of 1979 and the ESA, and mitigate appropriately.
- Educate the public as to appropriate authorized uses of public land.

2.18.2 LAND TENURE

A. CLASSIFICATION

Classification is the authority of the Secretary of the Interior to determine the physical suitability of public land for disposition (i.e., retention or disposal.) On March 3, 1879, Congress established the United States Geological Service under the Department of the Interior, who was responsible for classifying public lands and examining the geologic structure and mineral resources and products of those lands. In 1934, under Section 7 of the Taylor Grazing Act, the Secretary of the Interior was given authority to withdraw all vacant, unreserved, and

unappropriated public land from settlement, location, sale, or entry pending classification as to the most useful purpose. Therefore, all public lands are subject to classification prior to final disposition. Section 202 of FLPMA allows the BLM to utilize the land use planning process to reclassify lands as appropriate.

The following actions require classification: R&PP leases and patents, agricultural entries (i.e., applications under the Desert Land Act, as amended, and the Carey Act), and State grants for educational, institutional, and park purposes. The following decisions would be applied throughout the planning area.

Desired Future Conditions

- Ensure proper classification of public lands.

Management Actions

- Reclassify public lands appropriately for all proposed dispositions.

Administrative Actions

- When lands are proposed for disposition, ensure that the lands are classified appropriately.

B. DISPOSAL

All land disposal actions are discretionary with emphasis on the evaluation of whether such lands are (1) manageable, (2) needed for any particular Federal purpose, or (3) better suited to serving the public. Sales and exchanges are used for disposal in order to assure an optimum final land ownership pattern and provide better overall land management. The types of sales include direct, competitive, and modified-competitive. Disposal of lands would be made on a case-by-case basis and would be accomplished by the most appropriate disposal authority. Lands not designated for disposal in this LUP would require an amendment and would have to meet the disposal criteria of the applicable laws and regulations. BLM could dispose of withdrawn lands with the concurrence of the withdrawing agency.

Public lands have potential for disposal when they are isolated and/or difficult to manage. Disposal actions usually take place in response to a request from the public, or from an application that could result in a title transfer wherein the lands leave the public domain. All public lands would be retained, unless specifically identified for disposal.

There are two distinct disposal methods outlined in FLPMA, these are sale and exchange.

- Land disposal by public sale is addressed in Section 203 of FLPMA. This section contains three criteria to apply in identifying public lands suitable for disposal by public sale. The criteria are that a) the tract of public land is difficult and uneconomical to manage as part of the public lands and is not suitable for management by another Federal department or agency, b) the land is no longer required for a specific purpose, or c) disposal would serve important public objectives.

- The criteria for determining which public lands or interests therein are available for disposal by exchange are covered in Section 206 of FLPMA. These criteria require BLM to consider the public interest by giving full consideration to better Federal land management and the needs of State and local people. These include the need of lands for the economy, community expansion, recreation areas, food, fiber, minerals, and fish and wildlife. For an exchange to take place, FLPMA requires that the values and public objectives of the non-Federal lands or interests to be acquired are greater than or equal to the values and public objectives of the lands or interests to leave Federal ownership.

The BLM may also dispose of lands under the following four authorities:

- **Desert Land Entry Act of 1877.** No lands have been identified as meeting the criteria for entry under this authority; therefore, none are available for disposal.
- **Indian Allotment Act of 1887.** No lands have been identified as meeting the criteria for entry under this authority; therefore, none are available for disposal.
- **The Act of June 14, 1926 (R&PP)**
  - The 1954 Revision of the R&PP Act. This authorizes the lease and/or conveyance of BLM-administered lands for recreational or public purposes to State and local governments and to qualified nonprofit organizations under specified conditions at less than the fair market value.
  - The 1988 Amendment to the R&PP Act. Section 3 of the R&PP, as amended, authorizes conveyance of public lands for the purpose of solid waste disposal or for any other purpose which may result in or include the disposal, placement, or release of any hazardous substance, with special provisions relating to reversion of such lands to the U.S.
- **The Airport and Airway Improvement Act of 1982.** This act provides for the conveyance of BLM-administered lands to public agencies for use as airports and airways.

In general, under all land ownership adjustments, BLM would honor valid existing rights, and other encumbrances connected with the parcel. Proposed disposal acreages are generally isolated parcels and vary by alternative as follows: 19,100 acres under Alternative A; 46,900 acres under Alternative B; 10,500 acres under Alternative C; 8,200 acres under Alternative D; and 11,900 acres under the Proposed Plan (Appendix 2-I).

Desired Future Conditions

- When disposing by sale, the preferred method would be competitive or modified-competitive.
- Eliminate split-estate by disposing of either the surface or subsurface rights, if disposal of the rights would be in the public interest.
- Ensure no net loss of Federal ownership along the lower Colorado River.

Management Actions

- Lands could be disposed of if they meet FLPMA criteria and are designated by a LUP or LUP amendment.
- BLM follows three criteria for land disposals regarding threatened and endangered species:
  - BLM would not transfer out of Federal ownership designated or proposed critical habitat for a listed or proposed threatened or endangered species.
  - BLM would not transfer out of Federal ownership lands supporting listed or proposed threatened or endangered species if such transfer would be inconsistent with recovery needs and objectives or would likely affect the recovery of the listed or proposed species.
  - BLM would not transfer out of Federal ownership lands supporting Federal candidate species if such action would contribute to the need to list the species as threatened or endangered.

Exceptions to the above could occur if the recipient of the lands would protect the species or critical habitat equally well under the ESA, such as disposal to a non-Federal governmental agency or private organization if conservation purposes for the species would still be achieved and ensured.

Administrative Actions

- Disposal requests from the public would be considered on a case-by-case basis.
- Lands identified for disposal must meet the criteria for public land sale or exchange under existing laws, regulations, and policies at time of disposal.

C. ACQUISITION

FLPMA authorizes the Secretary of the Interior (delegated to BLM) to acquire non-Federal lands or interests in lands pursuant to FLPMA Section 205(a).

Desired Future Conditions

- Achieve split-estate consolidation pursuant to Sections 205 and 206 of FLPMA.
- Any lands acquired by the BLM would include both the surface and mineral estate when possible and would be managed in accordance with the approved LUP decisions for the surrounding area.

Management Actions

- Manage all acquired lands in accordance with the approved LUP decisions for surrounding or adjacent BLM-administered lands.
- Lands to be acquired must either:
  - Facilitate access to public lands and resources,
  - Maintain or enhance public uses and values,
  - Facilitate implementation of this RMP/EIS,

- Provide for a more manageable land ownership pattern,
- Include significant natural or cultural resource values, or
- Eliminate split-estate by acquiring either the surface or subsurface rights, if acquisition of rights would be in the public interest.

Administrative Actions

- Seek appropriate sources of funding to acquire desired lands from willing owners.

2.19 MINERAL RESOURCE MANAGEMENT

BLM supports mineral exploration and development on public lands in keeping with BLM's multiple-use mandate. Unless otherwise restricted, all Federal mineral estates administered by YFO within the planning area would be available for orderly and efficient development of mineral resources. Leases and sales of mineral materials are discretionary actions.

Identified mineral resources are classified according to the BLM's system as described in *Manual* 3031 and *Manual* 3060. Minerals management regulations are located in 43 CFR 3000. A mineral resource potential report was prepared for the planning area (USDOI BLM 2005c).

YFO would allow exploration and development of all mineral resources including those on split estate. Exploration and development would be conducted in accordance with applicable laws, regulations, and policies, and in conformance with the approved LUP. Restrictions and stipulations would be applied on a case-by-case basis.

Mineral resources are categorized as follows:

Leasable Minerals. These minerals include fluid minerals such as oil, gas, coalbed methane, carbon dioxide (CO_2), and geothermal resources; and solid minerals such as coal, sodium, and potash. Although not a leasable mineral, helium is included in this category, because it is typically associated with CO_2 exploration and development (43 CFR 3100 and 43 CFR 3200).

Locatable Minerals. These include metallic minerals such as gold, silver, copper, lead, zinc, and uranium; and non-metallic minerals such as allunite, asbestos, barite, gypsum, and mica; and uncommon varieties of stone (43 CFR 3800).

Salable Minerals. These minerals include construction materials such as sand, gravel, cinders, decorative rock, and building stone (43 CFR 3600).

2.19.1 LEASABLE MINERALS

Laws and regulations applicable to Federal leasing in the planning area include:

- Mineral Leasing Act of 1920 as amended and supplemented
- Acquired Lands Mineral Leasing Act of 1947

- Mining and Minerals Policy Act of 1970
- Federal Onshore Oil and Gas Leasing Reform Act of 1987
- Geothermal Steam Act of 1970
- 43 CFR 3100 (Oil and Gas Leasing) and 43 CFR 3200 (Geothermal Resource Leasing)

Policy/guidance specific to BLM include:

- BLM Manual Series 3100—*Onshore Oil and Gas Leasing*, including all associated Handbooks, Instruction Memoranda, and Orders

A determination that lands are available for leasing represents a commitment to allow surface use under standard terms and conditions unless stipulations constraining development are attached to leases. When applying leasing restrictions, the least restrictive constraint to meet the resource protection objective would be used.

For split estate minerals (where the U.S. owns the minerals), leasing of Federal mineral estate on lands where the surface is not held by the Federal government would be done in accordance with Federal law, regulations and policy guidance. The surface owner would be notified prior to lease and given the opportunity to comment.

Desired Future Conditions

- Ensure that public lands are available for mineral leasing in accordance with existing leasing laws unless precluded from leasing by other laws or regulations.
- Prevent unnecessary or undue degradation of public lands by operations authorized by the leasing law.
- Ensure that all public lands are subject to application for mineral leasing, unless specifically withdrawn.
- Continue to base site-specific decisions regarding lease issuance and the attachment of appropriate stipulations on existing laws, regulations, and policies, and in conformance with the approved LUP.

Management Actions

- In highly sensitive areas, where special stipulations are not sufficient to protect surface resource values, stipulations for no surface occupancy for leasable mineral development may be attached to the lease.
- Should activity cease on a mining claim, wells would become government property and the determination of whether or not the wells are capped would be made by BLM.
- When BLM manages the subsurface estate only, BLM would consult with the surface owner prior to issuing a contract or permit.
- No surface occupancy for oil and gas leases would be applied within the Colorado and Gila River Riparian WHA and the Desert Mountains WHA where AGFD has identified sensitive desert bighorn sheep habitat.

Administrative Actions

- Continue to administer exploration and development in the planning area in accordance with surface and mineral management regulations.

2.19.2 LOCATABLE MINERALS

Laws and regulations applicable to mining claims on public lands in the planning area include:

- General Mining Law of 1872, as amended
- FLPMA
- 43 CFR 3700 – Multiple Use; Mining
- 43 CFR 3800 – Mining Claims under the General Mining Laws

Policy/guidance specific to the BLM include:

- BLM Manual 3800—*Mining Claims under the General Mining Laws*
- BLM Handbook H-3042-1—*Solid Minerals Reclamation Handbook*

Regulations contained in 43 CFR 3715 and 43 CFR 3809 provide for the management of surface disturbance associated with mineral exploration and development, including mining claim use and occupancy. Occupancies would meet the requirements and standard stipulations contained in the BLM *Arizona Programmatic Environmental Assessment for Mining Claim Use and Occupancy* (USDOI BLM 1997b).

Locatable Mineral Potential

- Within the planning area, 290,500 acres have moderate potential and 268,100 acres have high potential for metallic locatable minerals. For non-metallic locatable minerals, the area of moderate potential is 1,127,200 acres, and the area of high potential is 18,700 acres (USDOI BLM 2005c).

Desired Future Conditions

- Ensure that public lands are available for exploration, location, and development of mining claims in accordance with existing mining laws unless withdrawn or segregated from entry.
- Prevent unnecessary or undue degradation of public lands by operations authorized by the mining laws.

Management Actions Common to All

- As part of the land ownership adjustment program, consolidate surface and subsurface (minerals) estates under one ownership when possible, thereby improving manageability of the Federal lands involved.

- Require notices when mechanized equipment is used for exploration or processing and cumulative disturbance is five acres or less.
- Require a mining plan of operations in accordance with 43 CFR 3800 for operations including, but not limited to;
  - Where disturbance is greater than five acres or where bulk sampling would remove 1,000 tons or more of ore;
  - In the California Desert Conservation Area designated by the California Desert Conservation Area plan as "controlled or limited" use areas;
  - In designated ACECs or currently withdrawn or reserved lands where the mining claim predates the withdrawal or reservation;
  - In closed OHV management areas;
  - In lands or waters known to contain federally listed threatened or endangered species or in proposed or designated critical habitat.
- In withdrawn areas, a validity examination would be required at prior existing claims before submittal of a mining plan of operations to verify the valid discovery of a valuable mineral deposit.
- Require reclamation of all disturbances created by casual use mining.

Administrative Actions

- Continue to administer exploration and development in the planning area in accordance with current surface and mineral management regulations.
- Monitor public lands for the occurrence of unauthorized use.
- Inventory and monitor mines which provide habitat for bats.

2.19.3 SALABLE MINERALS

Laws and regulations applicable to salable minerals on public lands in the planning area include:

- Acquired Lands Mineral Leasing Act of 1947
- Mineral Materials Act of 1947 as amended
- FLPMA; and 43 CFR Part 3600
- Surface Resources Act of 1955
- BLM Handbook H-3042-1—*Solid Minerals Reclamation Handbook*
- BLM *Manual and Handbook* 3600

Removal of mineral materials from BLM-administered lands requires either a sales contract or a free use permit. Disposal of mineral materials is a discretionary action and would be authorized in accordance with appropriate laws, regulations, and policies, in conformance with the approved LUP.

It is BLM's policy to make mineral materials available to the public and local governmental agencies whenever possible and wherever it is environmentally acceptable. In response to increased demand for mineral materials in the planning area, YFO has proposed several sites for community pits. Community pits would make mineral materials available in small quantities. The use of community pits would more readily satisfy public demand while restricting surface disturbance to a limited number of areas. Mineral material disposals would continue to be authorized in other locations in the planning area if appropriate.

All community pit proposals must have a site-specific environmental analysis completed prior to implementation, including NEPA, NHPA Section 106, and ESA Section 7 documentation. If the site-specific analysis reveals that the community pit would have an adverse or significant impact on resources, the footprint of the proposal may be moved or reduced to avoid or minimize impacts. If impacts to resources cannot be sufficiently avoided or mitigated during site-specific analysis, the proposed community pit would not be implemented.

There are no designated community pits under Alternative A. Alternative B proposes six community pits for a total of 800 acres. Alternative C would propose three community pits for a total of 400 acres. Alternative D would propose one community pit for a total of 100 acres. There are five community pits proposed on 700 acres under the Proposed Plan. A summary of community pits by alternative is presented in Table 2-31 below and Maps 2-13a through 2-13e.

Table 2-31
Community Pit Names and Sizes

Pit Name	Max Pit Size/Max Volume	Alternative				
		A	B	C	D	E
Ehrenberg South	100 acres (~1,000,000 cubic yards)	X*	X	X	X	X
NE Quartzsite	100 acres (~1,000,000 cubic yards)		X	X		X
Dateland	200 acres (~1,000,000 cubic yards)		X	X		X
Brenda	100 acres (~1,000,000 cubic yards)		X			X
Telegraph	100 acres (~1,000,000 cubic yards)		X			
Hart	200 acres (~1,000,000 cubic yards)		X			X
Total Number		1	6	3	1	5
Total Acres		100	800	400	100	700

*Pending, NEPA analysis is in progress.

Desired Future Conditions

- Prevent unnecessary or undue degradation of public lands.
- Public lands would be available for disposal of mineral materials at the discretion of the authorized officer.
- Authorize mineral material operations on a case-by-case basis to facilitate infrastructure development.

Management Actions

- Conduct a site specific environmental analysis for the implementation of each community pit.

- Authorize no salable mineral material permits within: 1) Category I and II desert tortoise habitat, and 2) the Colorado and Gila River Riparian WHA.

Administrative Actions

- Coordinate with Reclamation to locate and preserve adequate mineral materials to accommodate project needs.
- Identify suitable locations for additional community pits where appropriate, based on future public need/demand.

2.20 PUBLIC HEALTH AND SAFETY MANAGEMENT

According to applicable Federal and State laws and regulations, YFO would identify areas or hazards which have potential impact to public health and safety.

The following are public health and safety concerns in the planning area:

- Abandoned mines
- Unexploded ordnance (UXO)
- International Boundary issues
- Hazardous materials

2.20.1 ABANDONED MINES

A primary public safety concern with regard to abandoned mines is the danger of a person being injured or killed by falling into or collapse of an open shaft, adit, or pit.

Desired Future Conditions

- Reduce or eliminate the risk to members of the public associated with abandoned mines.
- Inventory and prioritize abandoned mine sites for reclamation, closure, or use as wildlife habitat.

Management Action

- Reduce the public risk by implementing fencing, signs, and ultimately closure of abandoned mine openings.
- For abandoned mines posing a public safety hazard, design protective fences or closures to accommodate existing or future use by wildlife (i.e., bats, small mammals, and owls).
- For abandoned mines that are part of an NRHP-listed or eligible historic site, the BLM would resolve the public safety hazard in compliance with NHPA and other applicable laws.

Administrative Actions

- Cooperate with the appropriate Arizona and California State agencies to identify the location of abandoned mines and prospects.

2.20.2 UNEXPLODED ORDNANCE

Unexploded ordnance (UXO) consists of military materials used in tests and on training ranges. UXO may include but is not limited to bombs, mortars, artillery shells, rockets, submunitions and landmines.

Two sources of risk exist at UXO sites: (1) risks from explosions and (2) risks from munition constituents (materials originating from UXO or other munitions, including the chemical constituents that result from their breakdown) that have leached into soil and water. Within the planning area, UXOs on public lands are sometimes found as a result of military maneuvers, both historic and present.

The U.S. Army Corps of Engineers is responsible for investigating and mitigating environmental impacts related to past military use at these types of facilities.

Given the amount of aircraft used on the various military facilities in the planning area, it is possible that a military aircraft could crash and be a source of UXO.

Desired Future Conditions

- Promote public and/or environmental safety from UXO.

Management Actions

- Take appropriate measures to protect the public from known UXO locations on BLM-administered lands, such as signing, fencing, removal, and remediation.

Administrative Actions

- In cooperation with the U.S. Army Corps of Engineers, identify the locations on BLM-administered lands that are potential areas of UXO concern. Investigate, inventory and record the presence of UXO on BLM-administered lands.
- Educate and advise the public of potential UXO risks present on public lands.

2.20.3 INTERNATIONAL BOUNDARY ISSUES

YFO manages public land along the International Boundary. The area experiences criminal incidents such as undocumented immigrant traffic, drug trafficking, robbery, rape, and random acts of violence including sporadic gunfire.

Desired Future Conditions

- Ensure borderlands are safe for public and agency use.

Management Actions

- Conduct and/or authorize vegetation treatments in selected locations to allow visibility and reduce cover for clandestine activity. Such treatments would be conducted in a way that considers impacts to Native American religious concerns.
- Require mitigation for vegetation treatments to offset impacts to riparian habitat and recreation values. Resolve public health and safety issues by clearing hazardous fuels along the International Boundary under the fire management program, where appropriate.
- Place signs regarding border safety, where appropriate.

Administrative Actions

- Coordinate with Mexico, Federal, State, and local agencies, and interested Native American tribes to address public health and safety issues on the International Boundary.

2.20.4 HAZARDOUS MATERIALS

Hazardous materials consist of chemicals and materials that have the potential to adversely impact human health and the environment. In the planning area, hazardous materials may include but are not limited to petroleum products, industrial chemicals, acids, heavy metals, lead-based paint, and asbestos-containing materials. Potential sources of hazardous materials include abandoned mines, mining mill sites, landfills, illegal dumping, leaking fuel tanks, illegal drug manufacturing sites, abandoned buildings, and other sites.

Laws governing the management of these materials include the Comprehensive Environmental Recovery, Compensation and Liability Act (CERCLA), the Resource Conservation Recovery Act, other Federal laws and regulations, and State and local regulations. Mining and milling wastes are managed under CERCLA as potentially hazardous materials or hazardous waste.

Formerly used defense sites located on BLM-administered land may contain hazardous materials. These materials include but are not limited to asbestos, lead paint, and petroleum products. Formerly used defense sites are managed in cooperation with the U.S. Army Corps of Engineers.

Given the amount of aircraft used on the various military facilities in the planning area, it is possible that a military aircraft could crash and be a source of hazardous materials. The materials could include aircraft fuel, burned materials, and possibly ordnance or munitions from the aircraft.

Desired Future Conditions

- Minimize the presence and potential impact to human health and the environment from hazardous materials.

Management Actions

- Remediate areas contaminated with hazardous materials in accordance with applicable laws and regulations.

Administrative Actions

- Perform public notification of potential health risks by means of notices, signs, and other forms of communication.
- Identify the presence of and characterize the types of hazardous materials present on BLM-administered lands.
- Coordinate with Federal and State agencies to remove and/or remediate hazardous materials as they are identified.
- Remediation within NRHP-listed or eligible cultural sites would be conducted in accordance with the NHPA.
- Implement soil testing and groundwater monitoring to define the lateral and vertical extent of impact from sites with hazardous materials contamination.
- Monitor the extent of impacts of sites containing hazardous materials, such as mining and milling wastes, to air, soil, and surface and groundwater.
- Coordinate to conduct "cleanup days" on illegal dumping sites, as time and staff availability permits.

2.21 BEST MANAGEMENT PRACTICES

BMPs are innovative, dynamic, and improved environmental protection practices applied to resource management activities to help ensure that those activities are conducted in an environmentally responsible manner. When incorporated into standard operating procedures, BMPs can protect resource values and public health by avoiding, minimizing, and/or mitigating impacts.

Some BMPs are as simple as careful siting of facilities so that they blend in with the natural surroundings, others involve safe application of herbicides, while others involve careful monitoring of cultural and natural resources. BMPs are based on past experience and practices and continue to improve over time, building on new techniques and creative strategies for resource management. BMPs are not one size fits all. They should be developed in response to specific requirements of an activity or project and the site-specific conditions and needs. The following sections provide general guidance on BMPs that would be appropriate for the YFO.

2.21.1 SPECIAL DESIGNATIONS

BLM manages designated Wilderness according to requirements of the Wilderness Act and provisions of designating legislation. Guidelines and operating procedures for all management activities in Wilderness Areas are provided in BLM *Manual* 8560—*Management of Designated*

Wilderness Areas, and in Wilderness management plans, where completed for specific Wilderness Areas. Requiring the completion of a *Minimum Requirements Decision Guide* prior to completing non-emergency actions within Wilderness would further ensure that impacts to wilderness values are minimized.

In Wilderness Areas minimum impact suppression tactics would be applied and coordinated with Wilderness Area management objectives and guidelines when fire suppression actions are required (National Interagency Fire Center 2007).

2.21.2 VEGETATION TREATMENTS

The following chemical, mechanical, manual, biological, and fire treatment methods would be used to achieve vegetation management objectives in the planning area.

A. CHEMICAL TREATMENT

YFO would use EPA-approved herbicides in accordance with EPA's Endangered Species Pesticide Program covered in the BLM's Vegetation Treatment on BLM Lands in Thirteen Western States FEIS (USDOI BLM 1991) and further limited to those approved for use by the Arizona ROD. These herbicides are Atrazine; Bromacil; Bromacil + Diuron; Chlorsulfuron; Clopyralid; 2,4-D, Diacamba; Dicamba +2,4_D; Diuon; Glyphosate; Glyphosate + 2,4-D;Hexazinone; Imazapyr; Mefluidide; Metsulfuron Methyl; Picloram; Picloram + 2,4-D; Simazine; Sulfometuron Methyl; Tebuthiuron; and Triclopyr. This list may be amended to accommodate subsequent updates to the herbicide EIS.

Treatments would follow Standard Operating Procedures on pages 1-19 through 1-32 and project design features on pages 1-33 through 1-37 of the *Environmental Impact Statement for Vegetation Treatments, Watersheds and Wildlife Habitats on Public Lands Administered by the BLM in the Western United States, including Alaska* (USDOI BLM 1991). Additionally, project design features, including buffer strips described on page 10 of the ROD, as follows: Buffer zones would be used adjacent to dwellings, domestic water sources, agriculture land, streams, lakes and ponds. A minimum buffer zone of 100 feet wide would be provided for aerial application, 25 feet for vehicle application and 10 feet for hand application. Any deviations must be in accordance with the label for the herbicide. Herbicides would be hand wiped on individual plants within 10 feet of water where application is critical. Additionally, in order to protect listed, proposed, and candidate species, these buffer strips would be used.

YFO would work closely with the USFWS to ensure that herbicide applications would not affect listed or proposed, threatened, and endangered species on a project-level basis. If adverse effects are anticipated during informal consultation, YFO would formally consult on these projects. If USFWS develops herbicide guidance for particular species that improves protection beyond the current BLM design features, YFO would consider and incorporate that guidance as it consults with USFWS on a project-level basis. The chemicals can be applied by many different methods, and the selected technique depends on a number of variables. Some of these are (1) the treatment objective (removal or reduction); (2) the accessibility, topography, and size of the treatment area; (3) the characteristics of the target species and the desired vegetation; (4) the location of

sensitive areas in the immediate vicinity (potential environmental impacts); (5) the anticipated costs and equipment limitations; and (6) the meteorological and vegetative conditions of the treatment area at the time of treatment.

Herbicides are applied in several ways, depending upon the treatment objective, topography of the treatment area, target species, expected costs, equipment limitations, and potential environmental impacts. Herbicide applications would be timed to have the least impact on non-target plants and animals consistent with the objectives of the vegetation management program.

The chemicals would be applied aerially with helicopters or fixed-wing aircraft, or on the ground using vehicles or manual application devices. Helicopters are more expensive to use than fixed-wing aircraft, but they are more maneuverable and effective in areas with irregular terrain and in treating specific target vegetation in areas with many vegetation types. Manual applications are used only for treating small areas, areas with sensitive cultural resources, or those inaccessible by vehicle.

Rates of herbicide application would depend on the target species, other vegetation present, soil type, depth of the ground water table, and presence of other water sources. When target species occur in riparian areas, the application rate would be reduced to reduce injury to non-target species.

The size of areas that would be treated would vary from 10 feet in diameter to 100 acres, but, most such areas would vary from 10 feet in diameter to less than five acres. The normal area of treatment by helicopter would be less than 100 acres.

During aerial applications, nozzles to reduce drift would be used for all liquid applications. Liquid herbicides would not be applied when wind speeds exceed five miles per hour (mph), and granular herbicides would not be applied when wind speeds exceed 10 miles per hour. Herbicides would not be applied when conditions stated on the herbicide label cannot be met and when air turbulence significantly affects the desired spray pattern. Buffer zones (see Glossary) to protect water resources would be provided according to individual State regulations and guidelines and herbicide labels.

Vehicle-mounted sprayer (hand gun or boom) applications would be mainly used in open areas that are readily accessible by vehicle. The boom would be used only where feasible to treat concentrated weed infestations. The hand gun would be used for spot treatment of weeds and only up to the high water line near water bodies. Neither hand guns nor booms would be used in riparian areas where weeds are closely intermingled with shrubs and trees. Under both hand gun and boom methods, sprays would be applied in a manner that gives the best possible coverage with the least amount of drift, and only when wind velocity is below eight mph, except in riparian areas where treatment would be applied only at wind velocities below five mph. Boom sprayers would not be used within 25 feet of water bodies.

Hand applications could involve backpack spraying, hand wiping application, and cyclone broadcast spreading (granular formulations). Backpack sprayers are operated at low pressure and low volume and release herbicide through a single nozzle held from 0.5 to 2.5 feet above the ground when wind velocities do not exceed eight mph. Near water, wind velocities cannot

exceed five mph. Contact systemic herbicides (see Glossary), such as glyphosate, wiped on individual plants, would be used up to the existing high water line. Granular formulations would be applied through broadcast spreaders at about 3.5 feet above the ground and no closer than 10 feet from the high water line of streams and other water bodies.

Herbicide applications are scheduled and designed to minimize potential impacts on non-target plants and animals, while remaining consistent with the objective of the vegetation treatment program. The rates of application depend on the target species, presence, and condition of non-target vegetation, soil type, depth to the water table, presence of other water sources, and the requirements of the label.

In many circumstances, the herbicide chosen, time of treatment, and rate of application of the herbicide are different than the most ideal herbicide application for maximum control of the target plant species in order to minimize damage to the non-target plant species and to ensure minimum risk to human health and safety.

B. MECHANICAL TREATMENT

Mechanical methods of vegetation treatment employ several different types of equipment to suppress, inhibit, or control herbaceous and woody vegetation. The goal of mechanical treatments is to kill or reduce the cover of undesirable vegetation and thus encourage the growth of desirable plants. YFO uses wheel tractors, crawler-type tractors, mowers, or specially designed vehicles with attached implements for mechanical vegetation treatments. The use of mechanical equipment to reduce fuel hazards would be conducted in accordance with BLM established procedures. Re-seeding after a mechanical treatment has been applied and is important to help ensure that desirable plants would become established on the site and not invasive species. The mechanical treatment and re-seeding should occur at a time to best control the undesirable vegetation and encourage the establishment of desirable vegetation. The best mechanical method for treating undesired plants in a particular location depends on the following factors:

- Characteristics of the undesired species present such as plant density, stem size, woodiness, brittleness, and re-sprouting ability
- Need for seedbed preparation, re-vegetation, and improve water infiltration rates
- Topography and terrain
- Soil characteristics such as type, depth, amount and size of rocks, erosion potential, and susceptibility to compaction
- Climatic and seasonal conditions
- Potential cost of improvement as compared to expected results

Bulldozing is conducted with a wheeled or crawler tractor with a heavy hydraulic controlled blade. Vegetation is pushed over and uprooted, and then left in windrows or piles. Bulldozing is best adapted to removing scattered stands of large brushes or trees. There are several different

kinds of blades available depending on the type of vegetation and goals of the project. The disadvantage of bulldozing is soil disturbance and damage to non-target plant species.

Disk plowing in its various forms can be used for removing shallow-rooted herbaceous and woody plants. Disk plows should only be used where all of the vegetation is intended to be killed. There are several different kinds of root plows that are specific for certain types of vegetation. In addition to killing vegetation, disk plowing is effective in loosening the soil surface to prepare it for seeding and to improve the rate of water infiltration. The disadvantage of disk plowing is that it may be expensive and usually kills all species. Also, plowing is usually not practicable on steep slopes (greater than a 35 to 45 percent slope) or rocky soil. Plant species that sprout from roots may survive.

Chaining and cabling is accomplished by dragging heavy anchor chains or steel cables hooked behind tractors in a U-shape, half circle of J-shaped manner. Chaining and cabling is effective on rocky soils and steep slopes. Chaining and cabling is best used to control non-sprouting woody vegetation such as small trees and shrubs. However, desirable shrubs may be damaged in the process. Herbaceous vegetation is normally not injured by this control method. This control method is cost effective, as large areas can be readily treated. The chains or cables also scarify the soil surface in anticipation of seeding desirable species. The disadvantage is that weedy herbaceous vegetation can survive this treatment.

There are various tractor attachments that are used for mowing, beating, crushing, chopping, or shredding vegetation depending on the nature of the plant stand and goals of the project. The advantage in using this type of equipment is that selective plants may be targeted to achieve specific goals. For example, mowing is effective in reducing plant height to a desirable condition and it usually does not kill vegetation. Mowing is more effective on herbaceous than woody vegetation. On the other hand, a rolling cutter can kill woody non-sprouting vegetation by breaking stems at ground level but leave herbaceous vegetation. Mowing, beating, crushing, chopping, or shredding usually does not disturb the soil. Rocky soil and steep slopes may limit this use of equipment.

Debris management after a mechanical control treatment application is critical in fuel reduction projects. Vegetation material that is left onsite would dry and become more hazardous than before the treatment. Herbaceous material is usually not a problem, because it would decompose relatively fast depending on soil moisture, ambient humidity, and temperature. Woody vegetation should be piled and burned under acceptable fire management practices.

Efforts repeated every 21 days during the growing season can deplete the underground food supply of some perennials. This method would be required for at least a three-year period to attain satisfactory control and would be considered only in areas where slope is less than 10 percent and where a small percentage of the vegetation consists of shrubs. This method would also weaken non-target species in treated areas.

C. MANUAL TREATMENT

Hand-operated power tools and hand tools are used in manual vegetation treatment to cut, clear, or prune herbaceous and woody species. In manual treatments, workers would cut plants above

ground level; pull, grub, or dig out plant root systems to prevent subsequent sprouting and re-growth; scalp at ground level or remove competing plants around desired vegetation; or place mulch around desired vegetation to limit the growth of competing vegetation. Hand tools such as the handsaw, axe, shovel, rake, machete, grubbing hoe, mattock (combination of axe and grubbing hoe), brush hook, and hand clippers are used in manual treatments. Axes, shovels, grubbing hoes, and mattocks can dig up and cut below the surface to remove the main root of plants such as prickly pear and mesquite that have roots that can quickly resprout in response to surface cutting or clearing. Workers also may use power tools such as chain saws and power brush saws.

Manual methods are highly labor intensive, requiring periodic retreatment, ranging from every three weeks during the growing season to annually, depending on the target species. These methods have been successful in controlling annuals and biennials, but are ineffective in controlling creeping perennials.

D. BIOLOGICAL TREATMENT

Biological methods of vegetation treatment could employ grazing by cattle, sheep or goats, but would not include the use of invertebrates or microorganisms. YFO would only use cattle, sheep, or goats when grazing, which would not adversely affect federally listed, proposed, or candidate species. The use of grazing as a biological control agent would be conducted in accordance with BLM procedures in the *Use of Biological Control Agents of Pests on Public Lands* (USDOI BLM 1990a). Grazing cattle, sheep, or goats would control few plant species.

Biological control methods using cattle, sheep, or goats would avoid erosion hazard areas, areas of compactable soils, riparian areas susceptible to bank damage, and steep erodible slopes. Domestic sheep and goats would not be used within nine miles of bighorn sheep habitat, per AGFD.

Biological control methods using cattle, sheep, or goats would be applied to treat areas for short periods. When considering the use of grazing animals as an effective biological control measure, several factors would be taken into consideration including:

- Target plant species present
- Size of the infestation of target plant species
- Other plant species present
- Stage of growth of both target and other plant species
- Palatability of all plant species present
- Selectivity of all plant species present by the grazing animal species that is being considered for use as a biological agent
- Availability of the grazing animal within the treatment site area
- Type of management program that is logical and realistic for the specific treatment site.

These factors would be some of the options taken when developing the individual treatment for a specific site.

Although discussed as biological agents, cattle, sheep, and goats are not truly biological agents, but are domestic animals used to control only the top growth of certain noxious weeds. The following are some advantages of using domestic animals, mainly sheep or goats, for noxious weed control: (1) they use weeds as a food source, (2) following a brief adjustment period, they sometimes consume as much as 50 percent of their daily diet of this species, (3) average daily gains of offspring grazing certain weed-infested pastures can sometimes be significantly higher than average daily gains of offspring grazing grass pastures, and (4) sheep or goats can be used in combination with herbicides.

Some of the disadvantages of using domestic animals are that (1) they also use non-target plants as food sources, (2) the use of domestic animals, like sheep or goats, requires a herder or temporary fencing, (3) the animals may be killed by predators such as coyotes, (4) heavy grazing of some weed species, such as leafy spurge, tends to loosen the stool of the grazing animals, (5) most weed species are less palatable than desirable vegetation and would cause overgrazing, (6) they may accelerate movement of nonnative plants through seed ingestion and excretion, and (7) domestic livestock may transmit parasites and/or pathogens to resident native wildlife species.

E. PRESCRIBED BURNING

Prescribed burning is the planned application of fire to wild land fuels in their natural or modified state, under specific conditions of fuels, weather, and other variables to allow the fire to remain in a predetermined area and to achieve site-specific fire and resource management objectives.

Management objectives of prescribed burning include the control of certain species; enhancement of growth, reproduction, or vigor of certain species, management of fuel loads, and maintenance of vegetation community types that best meet multiple-use management objectives. Treatments would be implemented in accordance with BLM procedures in Fire Planning, Prescribed Fire Management, and Fire Training and Qualifications.

Prior to conducting a prescribed burn, a written plan must be prepared that takes into consideration existing conditions (amount of fuel, fuel moisture, temperatures, terrain, weather forecasts, etc.) and identifies people responsible for overseeing the fire. Potential effects to sensitive cultural resources, including sites that are especially susceptible to damages from fire, such as rock art or historic sites with wooden components, must also be considered. Planning and implementation for a specific prescribed fire project entails the following four phases:

Phase 1. The Information/Assessment Phase includes identifying the area to be treated, inventorying and assessing site specific conditions (live and dead vegetation densities, dead down woody fuels loadings, soil types, etc.), analyzing historic and present fire management, identifying resource objectives from LUPs, and analyzing and complying with NEPA.

Phase 2. The Prescribed Fire Plan Development Phase includes developing a site specific prescribed fire plan to BLM Standards. It also includes reviews of the plan and obtaining plan approval from local BLM field office administrators.

Phase 3. The Implementation Phase includes ignition of the fire according to the plan's prescribed parameters. Implementation includes prescribed fire boundary area preparation to ensure that the fire remains in prescribed boundaries. Site preparation may take place in the form of fire line construction, road improvements, wildlife and stock trails, tree limbing, and debris clearing.

Phase 4. The Monitoring and Evaluation Phase includes assessment and long-term monitoring of the fire treatment to ensure that the prescribed fire has met the objectives of the approved prescribed fire plan. BLM fire monitoring policy is described in the BLM prescribed *Fire Management Handbook*, October 2003, Chapter 2 and Appendix 7. This policy applies to prescribed fire and wildland fire use.

2.21.3 APPROPRIATE MANAGEMENT RESPONSE TO WILDLAND FIRES

The AMR concept represents a range of available management responses to wildland fires. The entire planning area would be managed as non-fire use. Responses range from full fire suppression to managing fires for resource benefits (fire use). Management responses applied to a fire would be identified in the fire management plans and would be based on objectives derived from the land use allocations; relative risk to resources, the public and fire fighters; potential complexity; and the ability to defend management boundaries. Any wildland fire can be aggressively suppressed, and any fire that occurs in an area designated for fire use can be managed for resource benefits if it meets the prescribed criteria from an approved fire management plan.

FIRE SUPPRESSION ACTIONS

- Suppression tactics would be utilized that limit damage or disturbance to the habitat and landscape. No heavy equipment would be used (such as dozers), unless approved by the Field Office Manager.
- Use of fire retardants or chemicals adjacent to waterways would be accomplished in accordance to the *Environmental Guidelines for Delivery of Retardant or Foam Near Waterways,* as specified in the most recent Standards for Fire and Fire Aviation Operations.
- All known cultural resources would be protected from disturbance.
- When suppression actions are required in Wilderness areas, minimum impact suppression tactics would be utilized and coordinated with Wilderness area management objectives and guidelines as specified in the most recent Standards for Fire and Fire Aviation Operations.
- When AMR allows as well as providing for fire fighter and public safety, land and resources management objectives, values at risk, weather, fuel conditions, threats and values to be

protected, and available resources, utilize minimum impact suppression tactics on lands managed to maintain wilderness characteristics.

- The general and species-specific Conservation Measures listed in Appendix 2-C would be implemented to the extent possible to minimize adverse effects to federally listed, proposed, or candidate species occurring within the planning area.
- For fire suppression activities, a protocol for consultation would be developed as a part of the Biological Opinion (BO). This programmatic consultation would contain conservation measures and prescriptions for use in fire suppression activities. Emergency consultation should only be needed in the future, if suppression actions fall outside of these prescriptions/measures. The BO would outline coordination needs for emergency response actions that may affect a federally listed/proposed species and/or critical habitat. The following protocol would apply: YFO would contact the appropriate USFWS biologist as soon as practical once a wildfire starts and a determination is made that a federally protected species and/or its habitat could be affected by the fire and/or fire suppression activities. USFWS would work with YFO during the emergency response to apply the appropriate Conservation Measures. When Conservation Measures cannot be applied during the suppression activities, YFO would, after the fact, need to consult on any suppression actions that may have affected the federally protected species or its habitat. If Conservation Measures are adhered to, YFO would report on the actions taken and effects to the species and its habitat following the fire, but no further consultation on that incident would be required.

2.21.4 WILDLIFE WATERS

Wildlife water developments would be constructed according to AGFD specifications (AGFD 2007).

2.21.5 SPECIES REINTRODUCTIONS AND TRANSPLANTS

Reintroductions and transplants are conducted pursuant to procedures in MS 1745 and Master MOUs with AGFD and CDFG, as appropriate, for animals, and applicable agencies for plants. Reintroductions and transplants for federally listed species are done in cooperation with State agencies and the USFWS.

Typically, a suitability analysis is conducted to determine if sufficient habitat of appropriate quality is available. The cooperating agencies develop a proposed action for the reintroduction or transplant and incorporate agency (State and Federal) procedures. The NEPA process and other environmental compliance is initiated after the proposed action is developed. Upon completion of environmental compliance and approval process, the State agency takes the lead in trapping/acquiring (based on individual species requirements) wild animals from the healthy source population, transports captures to the reintroduction site (based on individual species transport requirements), and conducts a release. Follow-up monitoring ensues until agencies are satisfied the project was successful or until adaptive management is required (e.g., predator control, supplemental stocking, or other measures).

2.21.6 SPECIAL STATUS SPECIES

A. FLAT-TAILED HORNED LIZARD

1. Prior to project initiation, an individual shall be designated as a field contact representative. The field contact representative shall have the authority to ensure compliance with protective measures for the FTHL and will be the primary agency contact dealing with these measures. The field contact representative shall have the authority and responsibility to halt activities that are in violation of these terms and conditions.

2. All project work areas shall be clearly flagged or similarly marked at the outer boundaries to define the limit of work activities. All construction and restoration workers shall restrict their activities and vehicles to areas that have been flagged to eliminate adverse impacts to the FTHL and its habitat. All workers shall be instructed that their activities are restricted to flagged and cleared areas.

3. A biological monitor shall be present in each area of active surface disturbance throughout the work day from initial clearing through habitat restoration, except where the project is completely fenced and cleared of FTHLs by a biologist. The monitor(s) shall perform the following functions:

    a) Develop and implement a worker education program. Wallet-cards summarizing this information shall be provided to all construction and maintenance personnel. The education program shall include the following aspects at a minimum:

        - biology and status of the FTHL,
        - protection measures designed to reduce potential impacts to the species,
        - function of flagging designating authorized work areas,
        - reporting procedures to be used if a FTHL is encountered in the field, and
        - importance of exercising care when commuting to and from the project area to reduce mortality of FTHLs on roads.

    b) Ensure that all project-related activities comply with these measures. The biological monitor shall have the authority and responsibility to halt activities that are in violation of these terms and conditions.

    c) Examine areas of active surface disturbance periodically (at least hourly when surface temperatures exceed 85ºF) for the presence of FTHLs. In addition, all hazardous sites (e.g., open pipeline trenches, holes, or other deep excavations) shall be inspected for the presence of FTHLs prior to backfilling.

    d) Work with the project supervisor to take steps, as necessary, to avoid disturbance to FTHLs and their habitat. If avoiding disturbance to a FTHL is not possible or if a FTHL is found trapped in an excavation, the affected lizard shall be captured by hand and relocated.

4. Sites of permanent or long-term (greater than one year) projects where continuing activities are planned and where FTHL mortality could occur, may be enclosed with FTHL barrier fencing to prevent lizards from wandering onto the project site where they may be subject to collection, death, or injury. Barrier fencing should be in accordance with the standards outlined in the *Rangewide Management Strategy*. After clearing the area of FTHLs, no on-site monitor is required.

5. Construction of new paved roads shall include a lizard barrier fence on each side of the road that is exposed to occupied FTHL habitat. Exceptions may occur in accordance with the following evaluation, to be applied separately to each side of the road. This prescription may also be applied to canals or other fragmenting projects.

   Side is made nonviable for FTHLs even if connected to the other side:
   - Compensate for the entirety of the fragmented parcel.

   Side is viable only if connected to the other side:
   - Compensate for the entirety of the fragmented parcel, or
   - Provide fencing and effective culverts or underpasses that will maintain connectivity.

   Side is viable even if not connected to the other side:
   - Provide fencing (no culverts).

   Specifications for barrier fences are provided in the *Rangewide Management Strategy*. The FTHL Interagency Coordinating Committee will make the determination of FTHL population viability based on the size, configuration, and habitat condition of the isolated parcel, threats from adjacent lands, and existing scientific evidence of edge effects on FTHL. Culvert design will be provided by the FTHL Interagency Coordinating Committee.

B. GILA MONSTERS

If any Gila monsters or desert tortoises are observed, their location shall be recorded and the sighting along with any information concerning the sighting shall be reported to the BLM wildlife biologist at the YFO.

C. SONORAN DESERT TORTOISES

1. Project activities shall be scheduled when tortoises are inactive (typically November 1 to March 1).

Within all categories of desert tortoise habitat, a desert tortoise protection education program shall be presented to all employees, inspectors, supervisors, contractors, and subcontractors who carry out proposed activities at the project site. The education program shall include discussions of the following:

- The legal and sensitive status of the tortoise;
- A brief discussion of tortoise life, history, and ecology

- Mitigation measures designed to reduce adverse effects to tortoises; and
- Protocols to follow if a tortoise is encountered, including appropriate contact points.

The project proponent shall designate a field contact representative (FCR) who shall be responsible for overseeing compliance with these mitigation measures and for coordination on compliance with the BLM. The FCR and authorized/qualified biologist(s) shall have the authority and the responsibility to halt all project activities that are in violation of these mitigation measures. The FCR shall be responsible for oversight of compliance with these mitigation measures, coordination with permitting agencies, land managers, and State Game and Fish Departments; and shall serve as a contact point for personnel that encounter desert tortoises. The FCR shall be on site during project activities and shall be familiar with and have a copy of these mitigation measures.

Prior to implementation of any BLM-authorized surface-disturbing activities, work sites shall be surveyed for desert tortoises by a qualified biologist approved by the BLM. Surveys shall be in accordance with standardized protocol approved by the BLM. For surface-disturbing activities occurring during the desert tortoise season (March 1 through November 1), surveys shall be conducted within 24 hours of initiation of surface-disturbing activities. The 100-percent surveys of new areas of disturbance shall be conducted a maximum of three times, or two consecutive times if no desert tortoises are found. During surveys, occupied desert tortoise burrows in or within 40 feet of areas to be disturbed shall be excavated using hand tools by an authorized biologist. Burrows discovered in areas to be disturbed by project activities shall be collapsed or blocked to prevent entry by tortoises (any tortoises in those burrows shall be relocated first). Desert tortoises and any desert tortoise eggs found in areas to be disturbed shall be relocated and handled in accordance with the following measures.

If a tortoise is found in a project area, activities shall be modified to avoid injuring or harming it. If activities cannot be modified, tortoises shall be moved from harm's way. Upon discovery of a desert tortoise in harm's way, the authorized biologist shall translocate the animal the minimum distance possible (but not more than 2 miles) within appropriate habitat to ensure its safety from death, injury, or collection associated with the project or other activities. The authorized biologist shall be allowed some discretion to ensure that survival of each relocated desert tortoise is likely. Desert tortoises shall not be translocated to lands outside the administration of the Federal government without the written permission of the landowner.

Handling procedures for desert tortoises shall adhere to protocols outlined in the *Management Plan for the Sonoran Desert Population of the Desert Tortoise in Arizona*.

Only biologists authorized by the BLM and the appropriate State Fish and Game Department shall handle desert tortoises. The holder shall submit the name(s) of the proposed authorized biologist(s) to the BLM for review and approval at least 45 days prior to the onset of activities that could result in a take.

The authorized biologist shall maintain a record of all desert tortoises encountered during project activities. This information shall include for each desert tortoise:

- The locations and dates of observation;

- General condition and health, including injuries and state of healing and whether animals voided their bladders;
- Location moved from and location moved to; and
- Diagnostic markings; i.e., identification numbers of marked lateral scutes.

No notching of scutes or replacement of fluids with a syringe is authorized.

Vehicle use shall be limited to existing or designated routes.

Areas of new construction or disturbance shall be flagged or marked on the ground prior to construction. All construction workers shall strictly limit their activities and vehicles to areas that have been marked. Construction personnel shall be trained to recognize markers and understand the equipment movement restrictions involved.

Blading of new access or work areas shall be minimized. Disturbance to shrubs shall be avoided. If shrubs cannot be avoided during equipment operation or vehicle use, they shall be crushed rather than excavated or bladed and removed.

Project features that might trap or entangle desert tortoises such as open trenches, pits, open pipes, etc., shall be covered or modified to prevent entrapment. This may only be necessary during the tortoise active season and may be unnecessary if an on-site biologist is monitoring activities.

Construction sites shall be maintained in a sanitary condition at all times. The project proponent shall be responsible for controlling and limiting litter, trash, and garbage by immediately placing refuse in predator-proof, sealable receptacles. Trash and debris shall be moved when construction is complete.

After completion of the project, trenches, pits, and other features in which tortoises could be entrapped or entangled, shall be filled in, covered, or otherwise modified so they are no longer a hazard to desert tortoises.

After project completion, measures shall be taken to facilitate restoration, where practicable. Restoration techniques shall be tailored to the characteristics of the site and the nature of project impacts identified in the mitigation plan as developed by project biologists, AGFD, and permitting State and Federal agencies. Techniques may include removal of equipment and debris, recontouring, replacing boulders that were moved during construction, seeding, planting, transplanting of cacti and yuccas, etc. Only native plant species shall be used in restoration.

The project proponent shall submit a monitoring report to the BLM within 60 days of project completion. For long-term or ongoing projects that may result in continuing impacts to tortoises and habitat, annual monitoring reports shall be prepared. Monitoring reports shall briefly document the effectiveness of the desert tortoise mitigation measures, actual acreage of desert tortoise habitat disturbed, the number of desert tortoises excavated from burrows, the number of desert tortoises moved from construction sites, and other applicable information on individual desert tortoise encounters. The report shall make recommendations for modifying or refining the

mitigation program to enhance desert tortoise protection and reduce needless hardship on the project proponents.

In accordance with *Compensation for the Desert Tortoise* (Desert Tortoise Compensation Team 1991), signed by the Desert Tortoise Management Oversight Group, authorizing agencies shall require compensation for residual impacts to desert tortoise habitat.

Oil, fuel, pesticides, and other hazardous material spills shall be cleaned up and properly disposed of as soon as they occur in accordance with applicable State and Federal regulations. All hazardous material spills must be reported promptly to the appropriate surface management agencies and hazardous materials management authorities.

Workers shall check under vehicles for desert tortoises before vehicles are moved. If tortoises are found, they shall be allowed to move out of harm's way on their own or shall be moved by an authorized biologist prior to moving the vehicle.

No unleashed pets (e.g., dogs) shall be allowed on the construction site.

On long-term or permanent projects in which continued encounters with desert tortoises are expected, such as construction of schools, factories, power plants, office buildings, and other permanent or long-term projects in moderate to high density desert tortoise habitat, the site shall be enclosed with desert tortoise barrier fencing to prevent tortoises from wandering onto the project site where they may be subject to collection, death, or injury. Barrier fencing shall consist of wire mesh with a maximum mesh size of one-inch (horizontal) by two-inch (vertical) fastened securely to posts. The wire mesh shall extend at least 18 inches above the ground and preferably 12 inches below the surface of the ground. Where burial is not possible, the lower 12 inches shall be folded outward, away from the enclosed site, and fastened to the ground so as to prevent tortoise entry. Any gates or gaps in the fence shall be constructed and operated to prevent desert tortoise entry (such as installing tortoise guards similar to cattle guards, and/or keeping gates closed). Specific measures for tortoise-proofing gates and gaps shall be addressed project by project. Fencing is a relatively expensive mitigation measure and may not be appropriate in areas of very low tortoise density.

In desert tortoise habitat, project-related vehicles shall not exceed 25 miles per hour on unpaved roads.

New paved roads and highways or major modifications of existing roads through desert tortoise habitat shall be fenced with desert tortoise barrier fencing. Culverts, to allow safe passage of tortoises, shall be constructed approximately every one mile of new paved roads and railroads (culverts can also serve the more typical purpose of conducting water under roads and railroads). The culvert diameter needed to encourage tortoise use is correlated with culvert length, but generally short culverts of large diameter are most likely to be used. Culvert design shall be coordinated with the AGFD and authorized State and Federal agencies. The floor of the culvert shall be covered with dirt and maintenance shall be performed as necessary to maintain an open corridor for tortoise movement.

Use of roads constructed for specific nonpublic purposes such as access routes to microwave towers shall be gated to limit access.

Temporary access routes created during project construction shall be modified as necessary to prevent further use. Closure of access routes shall be achieved by ripping, barricading, posting the route as closed, and/or seeding and planting with native plants.

2. Projects Conducted During Tortoise Activity Period (Typically March 1 to November 1)

Within all categories of desert tortoise habitat, for projects conducted during normal tortoise activity period (typically March 1 to November 1), construction and operation activities shall be monitored by a qualified biologist (approved by the BLM). The biologist shall be present during all activities in which encounters with tortoises may occur. The biologist shall watch for tortoises wandering into construction areas, check under vehicles, check at least three times per day any excavations that might trap tortoises, and conduct other activities necessary to ensure that death and injury of tortoises is minimized.

Temporary fencing, such as chicken wire, snow fencing, chain link, and other suitable materials shall be used in designated areas to reduce encounters with tortoises on short-term projects, such as construction of power lines, burial of fiber optic cables, etc., where encounters with tortoises are likely.

D. SOUTHWESTERN WILLOW FLYCATCHER

To avoid disturbing birds during migration, activities in SWFL migratory habitat shall be avoided during spring migration (May 1 to June 30) and fall migration (Aug 15 to Oct 7).

2.21.7 LIVESTOCK GRAZING ACTIVITIES

Desired plant community objectives would be quantified for each allotment through the rangeland monitoring and evaluation process. Ecological site descriptions available through the USDOA NRCS and other data would be used as a guide for addressing site capabilities and/or potentials for change over time. These desired plant community objectives are vegetative values that YFO is managing over the long term. Once established, desired plant community objectives would be updated and monitored based on indicators for the Land Health Standards. These standards were developed through a collaborative process and identify the characteristics of and the management actions needed to promote and sustain healthy ecosystems on public lands.

Monitoring studies would be used to determine conformance with the *Land Health Standards and Guidelines for Grazing Administration*. Monitoring studies generally include actual use, utilization, trend, and climate. The three management categories would be used to set priorities. These studies would be analyzed through the evaluation process to determine management actions needed to achieve standards and meet multiple-resource management objectives.

Rest rotation, deferred rotation, seasonal or short duration use, or other grazing management systems may be implemented where the need has been identified through monitoring. Monitoring would be used to assess the effectiveness of changes brought about by new management practices.

Intensity, season and frequency, and distribution of grazing use should provide for growth and reproduction of the plant species needed to reach desired plant community objectives.

Deferment of livestock would be considered where possible in cooperation with lease and permit holders. This deferment may allow for the use of prescribed fire or other vegetative treatments, or the use of the area as a grass bank to allow for rest in other grazing allotments.

Administrative vehicular access to repair range improvements by the grazing lessee would be authorized through issuance of the grazing permit.

One-time travel to access sick or injured livestock away from designated routes could be authorized to transport the individual to a medical facility.

Any compensation for a loss of range improvements within the pastures would be made in accordance with 43 CFR 4120.3-6.

Livestock management changes may be made when sufficient assessment, inventory, or monitoring data are available.

Fence construction and maintenance would follow guidance provided in the BLM *Handbook on Fencing* No. 1741-1.

2.21.8 TYPICAL RANGE OF HABITAT IMPROVEMENTS

Following is a discussion of typical design features, construction practices, and implementation procedures for range or habitat improvements that could be constructed following approval of the RMP/ROD. The extent, location, and timing of such actions would be based on allotment-specific management objectives adopted through the evaluation process, interdisciplinary development and analysis of proposed actions, and funding.

A. FENCES

All new fences would be built to BLM manual specifications. Fences would normally be constructed to provide exterior allotment boundaries, divide allotments in pastures, protect streams, and control livestock. Most fences would be three-wire or four-strand with steel posts spaced 16.5 feet apart with intermediate wire stays. Existing fences that create wildlife movement problems would be modified. Proposed fence lines would usually not be bladed or scraped. Gates or cattle guards would be installed where fences cross existing roads.

All new or reconstructed fences in big game habitat, including desert bighorn sheep habitat, would meet specifications in BLM Handbook 1741-1 or be designed to allow for the movement of big game, including desert bighorn sheep. YFO would consult with AGFD and CDFG on the design and location of new fences.

B. PIPELINES

Wherever possible, water pipelines would be buried. The trench would be excavated by a backhoe, ditch witch, or similar equipment. Plastic pipe would be placed in the trench and the excavated material would be used to backfill. Most pipelines would have water tanks spaced as needed to achieve proper livestock distribution.

C. RESERVOIRS

Stock pond sites would be selected based on available watershed and hydrologic information. All applicable State laws and regulations would be followed.

D. WELLS

Well sites would be selected based on geologic reports that predict the depth to reliable aquifers. All applicable State laws and regulations that apply to groundwater would be observed.

E. SUPPLEMENTAL FEEDINGS

Supplemental feed must be authorized in advance. Supplemental feed means a feed that supplements the forage available from the public lands and is provided to improve livestock nutrition or rangeland management.

If used, salt should be placed at least 0.25 mile from water sources to disperse impacts.

2.21.9 WILD HORSE AND BURRO ACTIVITIES

A. SUPPLEMENTAL WATER

In response to restricted or prohibited access to the Colorado River, and to enhance management opportunities for wild horses and burros within the Cibola-Trigo HMA, supplemental water may be developed within the HMA. Such developments may include wells, water catchments, and earthen tanks. Locations would be determined on a case-by-case basis and dependent upon available funding. Wells would likely be redevelopment of an existing well. Water catchments would use current underground storage techniques currently employed by AGFD. Earth tanks would require moving the soil and constructing a dam with an impoundment behind it.

B. CAPTURE TECHNIQUES

There are three capture techniques utilized to gather wild horses and burros. There are two methods that are helicopter assisted, and one is bait trapping. Because the primary water source is the Colorado River, water trapping is not a viable option for capturing these animals in a majority of the HMA.

Bait traps utilize feed, generally alfalfa hay, to entice the animals to a specific location. This method is not used for capturing wild horses but is a very efficient method for wild burros. Hay is placed within a trap constructed of portable panels, with a bayonet gate. Burros enter the trap to eat, but can not see a hole big enough to exit. This is an efficient method to capture a small number of burros, and is regularly employed in nuisance situations.

Helicopter assisted gathers use a low flying helicopter to herd the animals to either a group of riders who would rope them or into a wing trap where they are captured in a trap constructed of portable panels. During helicopter herding, the animals are moved at their own pace toward the trap or ropers. If they are being roped, they are led to stock trailers and loaded. If they are trapped, the animals are moved to a back pen adjacent to the trap so that additional animals can be gathered. When capture operations are done for the day, the animals are loaded onto stock trailers. Roping is a method best suited for large open washes and when a few animals are targeted for removal. Wing traps are an efficient means of gathering large numbers of animals and is easily moved to a new location.

During helicopter assisted gathers, various safeguards to ensure the health and safety of the wild horses or burros and personnel are employed. Animals would not be herded from more than four miles away from the trap. Mothers with young foals are allowed to drop away from the others if the foal is unable to keep up. In the summer months, once the temperature reaches 105 degrees, herding operations are ceased. YFO has not had any incident of serious injury or death to captured animals in the last 14 years.

C. TRANSPORT

Captured animals are transported in stock trailers from trap locations to either temporary holding or to holding facilities in Kingman, Arizona. All stock trailers have skid proof floors, are closed top, and safe for transport of wild horses and burros. At temporary holding, the animals are separated by sex, fed, and watered. Once capture operations are completed or if a load needs to be shipped, the animals are taken to Kingman, Arizona, where they would be vaccinated, freeze branded, and available for adoption.

2.21.10 RECREATION

YFO applies BMPs to ensure that recreational facilities and activities comply with all applicable natural and cultural resource management laws, regulations, and policies, and to further promote sustainable land use ethics. Two sets of supplementary rules have been established by the YFO to regulate public occupancy, use, and conduct within the LTVAs and seven other developed recreation fee sites. These supplementary rules address a variety of natural and cultural resource and public health and safety protection measures. The YFO continuously monitors and updates these Supplementary Rules as needed and according to the guidance set forth in 43 CFR 8365.1-6. The YFO develops stipulations for activities authorized through the YFO's SRP program, including organized group events, vending operations, and commercial activities. Stipulations are typically established to protect natural and cultural resource values, public health and safety, and limit the displacement of existing recreational uses.

2.21.11 TRAVEL MANAGEMENT

The route evaluation criteria set forth in this PRMP/FEIS (see Section 2.12.2.B) will ensure that all of the public lands' various resource values are considered during the future travel management planning process. The implementation of future route designation decisions will comply with the BLM policies set forth in IM No. AZ-2006-043, Section 106 *Compliance for Designating Off-Highway Vehicle Routes and Areas in Land Use Plans* (August 14, 2006) and IM No. 2007-030, *Clarification of Cultural Resource Considerations for OHV Designation and Travel Management* (December 15, 2006). In addition, the YFO will continue using its authority under 43 CFR 8364.1 to enact closure or restriction orders to protect persons, property, and public lands and resources.

2.21.12 VISUAL RESOURCES

There are numerous design techniques for visual resources that can be used to reduce the visual impacts from surface-disturbing projects. These techniques should be used in conjunction with BLM's visual resource contrast rating process wherein both the existing landscape and the proposed development or activity are analyzed for their basic elements of form, line, color, and texture. Design techniques are discussed in the BLM VRM *Manual* 8431 in terms of fundamentals and strategies. The fundamentals and strategies are all interrelated, and when used together, can help resolve visual impacts from proposed activities or developments.

Design fundamentals are general design principles that can be used for all forms of activity or development, regardless of the resource value being addressed. Applying these three fundamentals would help solve most visual design problems:

- Proper siting or location
- Reducing unnecessary disturbance
- Repeating the elements of form, line, color, and texture

Design strategies are more specific activities that can be applied to address visual design problems. Not all of these strategies would be applicable to every proposed project or activity:

- Color selection
- Earthwork
- Vegetative manipulation
- Structures
- Reclamation/restoration
- Linear alignment design considerations

These techniques are only a portion of the many design techniques available to help reduce the visual impacts resulting from surface-disturbing activities or projects. Additional design techniques are utilized as BMPs to avoid or minimize impacts to visual resources. Consultation

with planners, landscape architects, and other design professionals would help to further reduce the visual impacts of any development.

2.21.13 CULTURAL RESOURCES

Management of cultural resources involves inventory to discover and record cultural resources, evaluation to determine their scientific and public importance, planning to determine their most appropriate uses, protection to safeguard the uses, and authorizing or otherwise accommodating their proper use.

A cultural resource inventory is maintained for all BLM-administered land. This inventory includes three classes: (1) Class I – synthesis of existing information, (2) Class II – sample field survey, and (3) Class III – intensive field survey. Cultural resources discovered through inventory are evaluated against the criteria of eligibility for the NRHP, and are nominated for listing.

Native American comments, concerns and perspectives are sought on all BLM actions potentially affecting cultural resources. YFO consults specifically with Native American tribes and traditional religious practitioners in accordance with the American Indian Religious Freedom Act, Section 106 of the NHPA, EO 13007, and the Native American Graves Protection and Repatriation Act.

Cultural resource protection efforts include both physical and administrative measures. Administrative measures include such actions as withdrawals, closures to public access, special designations, land acquisitions, easements, and protective covenants or stipulations to provide for protection of sensitive resources. Physical protection includes measures such as site-specific stabilization, signs, fencing, adaptive reuse, law enforcement surveillance and patrols, public awareness activities, site interpretation, and other actions.

YFO also protects cultural resources by following the NHPA Section 106 process for all undertakings with the potential to affect cultural resources. Avoidance is the preferred course of action when a proposed project may affect an archaeological or historic site. In some cases, it is not possible to avoid NRHP-eligible sites; those important primarily for the scientific information they contain are then conserved through data recovery.

2.21.14 PALEONTOLOGICAL RESOURCES

Management of paleontological resources emphasizes the non-renewable nature of fossils, their usefulness in deciphering ancient and modern ecosystems, the public benefits and public expectations arising from their scientific, recreational and educational values, BLM's interest in the continued advancement of the science of paleontology, and the importance of minimizing resource use conflicts within a multiple use framework.

Paleontological resources are considered in all levels of planning, such as RMPs, EISs, resource- or area-specific activity plans, and land tenure adjustments. For paleontological resources, this includes:

1. Identifying areas and geological units, i.e., formations, members, etc., containing paleontological resources.

2. Evaluating the potential of areas to contain vertebrate fossils or uncommon non-vertebrate fossils.

3. Assessing the impacts to paleontological resources from the planned actions.

4. Developing strategies to mitigate resource use conflicts and loss of paleontological resources and related information.

5. Developing management recommendations to promote the scientific, educational and recreational uses of fossils on public lands.

Surface disturbing actions may adversely impact paleontological resources. Where areas containing fossils are identified during environmental (NEPA) review of land-use actions, land-use authorizations or transfer of title, existing data is used to assess potential impacts to paleontological resources. A paleontological field survey is carried out by a qualified paleontologist whenever analysis of existing data indicates that vertebrate fossils or noteworthy occurrences of invertebrate or plant fossils are, or are likely to be, present in an area proposed for surface disturbance. Compliance with NEPA may involve mitigation where vertebrate fossils, or noteworthy occurrences of invertebrate or plant fossils, are known. Mitigation may be accomplished, for example, by (1) collection of data and fossil material, (2) obtaining representative samples of the fossils, (3) avoidance, or (4) in some cases by no action. In some cases, surface disturbance may have a beneficial impact on paleontological resources where it exposes additional outcrop areas for study, or public education/interpretation. Based on the formal analysis of existing data and the field survey, a decision whether or not to mitigate is made by the Authorized Officer.

Paleontological Resource Use Permits are issued to qualified applicants for the purpose of facilitating collection of fossils for scientific research and educational uses, or mitigating adverse impacts resulting from surface disturbing projects. Protection measures to prevent or detect unauthorized uses of paleontological resources, include patrol/surveillance, signs, special designations, and public information and education programs.

2.21.15 MINERAL RESOURCE ACTIVITIES

Unless otherwise restricted, all Federal mineral estates administered by YFO within the planning area are available for orderly and efficient development of mineral resources. Mineral exploration and development is generally encouraged on public land in keeping with BLM's multiple use concepts. Overall guidance on the management of mineral resources appears in the Mining and Mineral Policy Act of 1970, Sec. 102(a)(120) of FLPMA, National Materials and Minerals Policy, Research and Development Act of 1980, and BLM's Mineral Resources Policy of May 29, 1984.

Exploration and development of all mineral resources would be conducted in accordance with all applicable laws and regulations. Acquired lands would be opened to mineral entry, unless critical

resource values (threatened and endangered species, riparian habitat, scenic values, cultural resources, etc.) or public health and safety require closure.

Issuing ROWs where there are active mining claims is routine and covered by legislation and regulation. The ROW purchaser or permittee is informed of the rights of the mining claimant. Mining might intermittently or temporarily obstruct the ROW.

A. LOCATABLE MINERALS

The 43 CFR 3715 and 3809 regulations provide for the management of surface disturbance associated with mineral exploration and development including mining claim use and occupancy. YFO reviews mining notices and plans in the time allotted as identified in the regulations. For notice-level operations, if time permits, a site visit would be conducted by an YFO staff member. A site visit would always be conducted by YFO staff during the processing of a plan of operations.

When occupancy is proposed under mining plans and notice-level operations, proper NEPA documentation would be required. YFO would work with operators to ensure that notices and plans are processed efficiently and in a timely manner. Reclamation plans and bonds are required for each notice and plan per regulation. The amount of such bonds is for the full amount required to complete 100 percent of the required reclamation as if YFO were required to hire independent contractors to do the work.

In addition to the requirements of 43 CFR 3715 and 43 CFR 3809, State and Federal law provides for numerous other permits including but not limited to: an Aquifer Protection Permit and a National Pollution Discharge Elimination System permit both issued by ADEQ, a Section 404 permit issued by the U.S. Army Corps of Engineers and a flood control permit issued by the county. Also, Arizona State law requires mining claimants to keep mining property in a safe condition. The State Mine Inspector's Office is responsible for enforcing this law. YFO would cooperate with all interested agencies to ensure that operations conducted on BLM-administered lands are in full compliance with all Federal, State, and local health, safety, and environmental laws as required by 43 CFR 3715.5.

All occupancy of mining claims must meet the requirements of 43 CFR 3715 and the specific requirements of 43 CFR 3715.2. At a minimum, all occupancies would meet the requirements and standard stipulations for occupancy contained in the BLM Arizona Programmatic Environmental Assessment for Mining Claim Use and Occupancy.

Surface disturbing activities at a level greater than casual use in Wilderness areas, national monuments, ACECs, and other areas identified in 43 CFR 3809.11 would require a plan of operations before mining can begin. Operations proposed for lands that are withdrawn from mineral entry would cause BLM to initiate a validity examination and would be allowed only on claims with a valid discovery and location existing before designation. Before BLM can approve mining plans of operation submitted for work in areas withdrawn from mineral entry, a BLM mineral examiner must verify that a valid claim exists. The mineral examination and mineral report must confirm that minerals have been found and the evidence is of such character that a

person of ordinary prudence would be justified in the further expenditure of his labor and means with a reasonable prospect of success in developing a valuable mine.

B. LEASABLE MINERALS

Lease applications would be considered on a case-by-case basis. Leases would be issued with necessary restrictions to protect resources. Stipulations to protect important surface values would be based on interdisciplinary review of individual proposals and environmental analyses.

C. MINERAL MATERIALS

The Mineral Materials Act of 1947 and 43 CFR 3600 regulations provide for the disposal and regulation of mineral materials. It is BLM's policy to make mineral materials available to the public and local governmental agencies. Applications for mineral materials are considered on a case-by-case basis and require either a sales contract or a free use permit from the appropriate BLM office. Disposal of mineral materials is a discretionary action and would be authorized in accordance with appropriate laws, regulations, and policies, in conformance with the approved LUP. Appropriate measures would be taken to protect the environment and minimize impacts to public health and safety.

2.21.16 PUBLIC HEALTH AND SAFETY

A. HAZARDOUS MATERIALS

Hazardous materials incidents in the planning area have resulted from leaking underground storage tanks, mining sites, occupancy trespasses, drug labs, wire burning sites, industrial waste, and illegal dump sites.

Although illegally dumped materials are not routinely classified as hazardous materials, the problem of discarded used tires, household trash, and commercial waste and materials has increased as the result of increased fees at county and private landfills and transfer stations. Also of concern are incidents of unexploded military ordnance and explosives from abandoned mining operations. YFO would clean up any hazardous materials that are illegally dumped on public land.

- Minimize releases of hazardous materials through compliance with current regulations.
- When hazardous materials are released into the environment, assess their impacts on each resource and determine the appropriate response, removal and remedial actions to take.

YFO would evaluate all actions (including land use authorizations and disposals, mining and milling activities, and unauthorized land uses) for hazardous materials, waste minimization, and pollution prevention.

- Identify appropriate mitigation for surface-disturbing and disruptive activities associated with all types of hazardous materials and waste management and all types of fire management.

Site-specific inventories of lands being disposed of or acquired would be completed. It is departmental policy to minimize potential liability of the Department of the interior and its bureaus by acquiring property that is not contaminated, unless directed by Congress, court mandate, or as determined by the Secretary of the Interior.

Mining and milling sites would be inspected to determine appropriate management for hazardous materials. Parties responsible for contamination would be identified and held liable for cleanup and resource damage costs, as prescribed by law.

C. ABANDONED MINE LANDS

YFO would educate the public about the risks associated with AML_1 sites and unexploded ordnance through signs, bulletin boards, and/or kiosks.

As funding is available, the Management Activities listed below would continue:

- Inventory AML_1 in high-use areas to determine mines that pose the greatest risk to public health and safety and identify the sites that should be closed to protect biological and cultural resources. Through the information gathered from the inventories, YFO would attempt to close all mines within 0.25 mile of developed recreation areas, campgrounds, access roads, and trails that pose the greatest risk to visiting public and mines that have significant cultural and biological resources. The method of closure would vary and be identified during site-specific NEPA analysis.
- Assess the impacts to waters of Arizona and California from abandoned mines, tailings, or mineral deposits within one mile of surface waters and reclaim sites presenting water quality concerns.
- Inspect AML_1 sites to identify all physical hazards presenting a safety risk to the public and take appropriate action to mitigate many hazards.
- Prevent public access to AML_1 contaminated areas.
- Notify the public of the conditions at an AML_1 site in close proximity to populated areas.

Where surveys indicate the potential for important bat habitat, YFO and its partners would take appropriate actions, such as the installation of bat gates, to preserve the habitat while addressing the public hazards.

In cases where AML_1 remediation actions may affect biological, cultural, or historical resources, the impacts are mitigated by avoiding the characteristics that make cultural sites eligible to the NRHP, recording the resources, relocating the resources, or stabilizing significant resources, consistent with reducing the threat to public health and safety.

D. UNEXPLODED ORDNANCE

The following actions would be appropriate with regard to the discovery of UXO.

- If UXO is discovered on public lands in the planning area, appropriate measures would immediately be taken to restrict access to the site.

- The appropriate military response unit would be notified of the UXO. For the planning area, that unit is currently 710th EOD, San Diego, California (619) 553-8500 (FAX 619-553 8095).

2.22 IMPLEMENTATION AND MONITORING

2.22.1 IMPLEMENTATION

LUP decisions become effective upon approval of the RMP. These decisions fall into two categories: Desired Future Conditions (goals and objectives), Management Actions (allowable uses and actions to achieve outcomes). Examples of decisions that become effective upon approval of the RMP include land use allocation decisions, and special designations such as an ACEC. Management actions that require additional site-specific project planning as funding becomes available are implementation decisions and would require further environmental analysis. Decisions to implement these projects are subject to administrative review at the time when such decisions are made.

YFO would continue to involve and collaborate with the public during implementation of this plan. Opportunities to become involved in the plan implementation and monitoring would include development of partnerships and community-based citizen working groups. YFO invites citizens and user groups within the planning area to become actively involved in implementation, monitoring, and evaluation of RMP decisions. YFO and citizens may collaboratively develop site-specific goals and objectives that mutually benefit public land resources, local communities, and the people who live, work, or play on the public lands.

2.22.2 ADAPTIVE MANAGEMENT

The adaptive management process is a flexible process that generally involves four phases: planning, implementation, monitoring, and evaluation. This RMP revision is an integral part of the adaptive management strategy. Adaptive management is a flexible approach to learning from the outcomes of management actions, accommodating change, and improving management. It involves synthesizing existing knowledge, exploring alternative actions, and making explicit forecasts about their outcomes. Management actions and monitoring programs are carefully designed to generate reliable feedback and clarify the reasons underlying outcomes. Actions and objectives are then adjusted based on this feedback and improved understanding. In addition, decisions, actions, and outcomes are carefully documented and communicated to others, so that knowledge gained through experience is passed on rather than being lost when individuals move or leave the organization.

BLM land use planning uses adaptive management through a four-phase process. The first phase is planning. When planning is finished, the RMP is implemented. Implementation of land use allocations, designations, and allowable-uses occur as soon as a ROD is signed, unless other

appropriate NEPA analysis is required. Management actions would occur throughout the life of the plan. Periodically the plan is evaluated (usually every five years) to determine if the decisions are accurate, being implemented, or need to be changed based on current information.

The Desired Future Conditions listed under each resource program are decisions that provide the parameters by which the BLM manages the lands and resources. The BLM uses continual monitoring of resource conditions to determine if the Management Actions being implemented are achieving the Desired Future Conditions. Adaptive management is applied in cases where the existing management is clearly not meeting those desired conditions or other alternatives could better meet the objectives. In such cases, adaptive management may include revising BMPs, or possibly revising an entire RMP, as is being done with this plan. Periodic RMP amendments are expected to occur as resource conditions, resource values, or goals and objectives change. LUP evaluations typically occur every five years, which are a complete analysis of existing conditions, anticipated issues, and the current decisions providing for the management of resources. Based on this interdisciplinary evaluation, the authorizing officer determines whether any, some, or all decisions remain appropriate for the management of the area.

A “limit of acceptable change” identifies specific thresholds for a resource that would not be crossed. Should those thresholds be reached adaptive management would be applied to stop or reverse resource degradation.

Based on the YFO’s LUP evaluation in the year 2000, it was determined that many of the decisions were either outdated according to resource conditions, new policies, or future goals. As YFO obtains new information, it would evaluate monitoring data and other resource information to periodically refine and update desired conditions and management strategies. This approach ensures the continual refinement and improvement of management prescriptions and practices.

Implementation-level planning, such as site-specific ACEC plans or Wilderness Area plans, are monitored periodically to ensure decisions are valid. As for LUPs, if needed, these plans are changed using principles of adaptive management and limits of acceptable change.

2.22.3 ADMINISTRATIVE ACTIONS

Although BLM’s intent and commitment to accomplish Administrative Actions is generally addressed in RMP/EIS-level documents, such activities are neither LUP-level decisions nor implementation-level management action decisions. Administrative Actions are day-to-day activities conducted by BLM, often required by FLPMA, but do not require a NEPA analysis or decision by a responsible official to be accomplished. Examples of Administrative Actions include but are not limited to mapping, surveying, inventorying, monitoring, collecting information needed such as research and studies, and completing project specific or implementation level plans.

2.22.4 MONITORING AND EVALUATION

LUP monitoring is conducted in three stages. The first is to ensure that decisions are implemented in accordance with the approved RMP/ROD. This type of monitoring is conducted

as RMP decisions become effective or when decisions to approve implementation level plans or to implement site-specific projects are approved or implemented.

The next stage of monitoring is to determine whether LUP decisions are achieving the desired effects. Effectiveness monitoring provides an empirical data base on impacts of decisions and effectiveness of mitigation. Effectiveness monitoring is also useful for improving analytical procedures for future impact analyses and for designing or improving mitigation and enhancement measures.

The last stage of monitoring is to determine whether a LUP decision continues to be the correct or proper decision over time. Evaluation monitoring goes beyond effectiveness monitoring and focuses on examining the validity of decisions. Evaluation monitoring is tied to adaptive management and the results of monitoring may require an update (amendment) to the RMP.

2.23 COMPARISON OF IMPACTS BY ALTERNATIVE

Table 2-32, beginning on page 2-183, provides a summary of the impacts that would occur from implementing the No Action and four action alternatives. Chapter 4 provides a more detailed analysis of impacts.

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Table 2-32
Comparison of Impacts by Alternative

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Special Designations – Wilderness Areas					
From All Management Actions Regardless of Resource	Eight congressionally designated Wilderness Areas totaling approximately 167,800 acres would continue to be managed according to the Wilderness Act of 1964 under all alternatives.				
Special Designations – National Historic Trails					
From Visual Resource Management	None identified.	VRM Class II allocations would protect 17 miles of NHT values.	VRM Class II allocations would protect 12 miles of NHT values.	VRM Classes I and II allocations would protect 12 miles of NHT values.	Same as Alternative C.
Special Designations – National Byways					
From Special Designations	None identified.	The Agua Caliente and the Gold Nugget Back Country Byways travel across the Sears Point ACEC and the Dripping Springs ACEC respectively, providing protection to Back Country Byway values.	Same as Alternative B.	None identified.	The Agua Caliente Back Country Byway travels across the Sears Point ACEC, providing protection to Back Country Byway values.
From Visual Resource Management	None identified.	VRM Class II allocations would protect 79 miles of Back Country Byway values.	Class II allocations would protect 11 miles of Back Country Byway values.	None identified.	VRM Class II allocations would protect portions of the Agua Caliente Back Country Byway.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Special Designations – ACECs					
From Special Designations	No Back Country Byways.	2.3 miles of the Agua Caliente Byway crosses the Sears Point ACEC, potentially resulting in adverse impacts to ACEC values.	Gold Nugget Byway crosses the Dripping Springs ACEC and 2.3 miles of the Agua Caliente Byway crosses the Sears Point ACEC, potentially resulting in adverse impacts to ACEC values.	No Back Country Byways located within ACECs.	2.3 miles of the Agua Caliente Byway crosses the Sears Point ACEC, potentially resulting in adverse impacts to ACEC values.
From Travel Management	None identified.	None identified.	600-acre Closed OHV Management Area at Dripping Springs would result in increased protection of ACEC values.	600-acre Closed OHV Management Area at Dripping Springs, 1,400-acre Closed OHV Management Area at Sears Point, and 56,600 acres of Closed OHV Management Areas in the Palomas Plain would result in increased protection of ACEC values.	400-acre Closed OHV Management Area at Dripping Springs and 1,400-acre Closed OHV Management Area at Sears Point would result in increased protection of ACEC values.
From Lands and Realty Management	None identified.	1,900 acres of ROW Corridors within the Big Marias ACEC would potentially result in adverse impacts to ACEC values.	Same as Alternative B.	10,300 acres of ROW Corridors proposed in the Palomas Plain ACEC and 1,900 acres in the Gila River Terraces and Trails ACEC, potentially resulting in adverse impacts to ACEC values.	Same as Alternative B.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Special Designations – ACECs (cont.)					
From Mineral Resource Management	Protection of ACEC values on 6,500 acres withdrawn from mineral development.	Protection of ACEC values on 3,600 acres withdrawn from mineral development.	Protection of ACEC values on 5,400 acres withdrawn from mineral development.	Protection of ACEC values on 8,300 acres withdrawn from mineral development.	Protection of ACEC values on 12,000 acres withdrawn from mineral development.
From Wilderness Characteristics Management	None identified.	None identified.	None identified.	A majority of the 429,200-acre Palomas Plain ACEC proposal would overlap with lands identified to maintain wilderness characteristics, which would provide indirect benefits to the proposed ACEC's recognized values.	None identified.
Vegetation Resources					
From Special Designations	Betty's Kitchen NRT would remain at 0.5 mile, no additional impacts to vegetation resources are expected.	Betty's Kitchen NRT would be extended five miles (5.5 miles total). Construction of the extended trail would result in potential adverse impacts to vegetation resources.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Vegetation Resources (cont.)					
From Special Designations (cont.)	No Back Country Byways.	220 miles of Back Country Byways proposed in seven areas. Byways have the potential to cause losses of roadside vegetation if improvements are constructed.	76 miles of Back Country Byways proposed in four areas. Byways have the potential to cause losses of roadside vegetation if improvements are constructed.	Same as Alternative A.	21 miles of Back Country Byways proposed in two areas. Byways have the potential to cause losses of roadside vegetation if improvements are constructed.
	6,700 acres of ACECs resulting in protective measures to vegetative resources (beneficial impacts).	Same as Alternative A.	28,900 acres of ACECs resulting in protective measures to vegetative resources (beneficial impacts).	491,400 acres of ACECs resulting in protective measures to vegetative resources (beneficial impacts).	Same as Alternative C.
From Vegetation Resource Management	12,400-acre Fred J. Weiler Greenbelt resulting in protective measures to vegetative resources (beneficial impacts).	No proposed VHAs.	12,400 acres of VHAs resulting in protective measures to vegetative resources (beneficial impacts).	22,900 acres of VHAs resulting in protective measures to vegetative resources (beneficial impacts).	Same as Alternative D.
	134,700 acres closed to firewood collection.	142,800 acres closed to firewood collection.	179,300 acres closed to firewood collection.	1,318,000 acres closed to firewood collection.	153,000 acres closed to firewood collection.
From Wildland Fire Management	The Arizona Fire Land Use Plan Amendment decisions would be carried forward, which are common to all alternatives. Full suppression of wildland fires would be used to protect riparian areas and natural resources.				

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Vegetation Resources (cont.)					
From Fish and Wildlife Management	539,500 acres of WHAs resulting in protective measures to vegetative resources (beneficial impacts).	1,545,800 acres of WHAs resulting in protective measures to vegetative resources (beneficial impacts) (exceeds planning area acres because proposed WHAs overlap).	1,605,200 acres of WHAs resulting in protective measures to vegetative(beneficial impacts) (exceeds planning area acres because proposed WHAs overlap).	900,400 acres of WHAs resulting in protective measures to vegetative resources (beneficial impacts).	1,526,200 acres of WHAs resulting in protective measures to vegetative resources (beneficial impacts) (exceeds planning area acres because proposed WHAs overlap).
From Recreation Management	Adaptive management would be used on a case-by-case basis to determine if the expansion or development of new recreation sites would be necessary to meet public demands or address user and resource conflicts. Additional impacts to terrestrial vegetation from new and expanded recreation sites would be considered and disclosed as required by NEPA during the development of subsequent recreation site activity plans. Recreation activities may result in the introduction and spread of non-native invasive species in both terrestrial and aquatic environments.			The expansion of existing recreation sites or the development of new recreation sites would not occur, resulting in no new impacts to vegetation resources from recreation management. The potential for recreational activities to introduce and spread non-native invasive species in both terrestrial and aquatic environments would still continue.	Same as Alternatives A, B, and C.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Vegetation Resources (cont.)					
From Travel Management	Adverse impacts to vegetation resources within 400 acres at the Ehrenberg Sandbowl Open OHV Management Area.	Adverse impacts to vegetation resources on 3,800 acres of Open OHV Management Areas.	Adverse impacts to vegetation resources on 2,400 acres of Open OHV Management Areas.	Same as Alternative A.	Same as Alternative A.
	OHV use and other trail-based activities can facilitate the dispersal and establishment of non-native invasive plant species.				
	Reduced impacts on 1,200 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.	Reduced impacts on 3,200 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.	Reduced impacts on 3,500 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.	Reduced impacts on 66,000 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.	Reduced impacts on 5,100 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.
From Lands and Realty Management	19,100 acres available for disposal, potentially adversely impacting vegetation resources.	46,900 acres would be available for disposal, potentially adversely impacting vegetation resources, including special status plants.	10,500 acres would be available for disposal, potentially adversely impacting vegetation resources, including special status plants.	8,200 acres available for disposal, potentially adversely impacting vegetation resources, but not disposing of blue sand lily habitat.	11,900 acres would be available for disposal, potentially adversely impacting vegetation resources, including special status plants.
	Adverse vegetation resource impacts on 300 miles of ROW Corridors and six communication sites.	Adverse vegetation resource impacts on 500 miles of ROW Corridors and 13 communication sites.	Adverse vegetation resource impacts on 500 miles of ROW Corridors and 11 communication sites.	Adverse vegetation resource impacts on 400 miles of ROW Corridors and eight communication sites.	Adverse vegetation resource impacts on 465 miles of ROW Corridors and 10 communication sites.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Vegetation Resources (cont.)					
From Mineral Resource Management	Adverse vegetation resource impacts on 100 acres of one community pit.	Adverse vegetation resource impacts on 800 acres of six community pits.	Adverse vegetation resource impacts on 400 acres of three community pits.	Adverse vegetation resource impacts on 100 acres of one community pit.	Adverse vegetation resource impacts on 700 acres of five community pits.
	Mineral entry withdrawals within 6,500 acres and 167,800 acres of Wilderness.	Mineral entry withdrawals within 3,600 acres and 167,800 acres of Wilderness.	Mineral entry withdrawals within 5,400 acres and 167,800 acres of Wilderness.	Mineral entry withdrawals within 8,300 acres and 167,800 acres of Wilderness.	Mineral entry withdrawals within 12,000 acres and 167,800 acres of Wilderness.
From Wilderness Characteristics Management	None identified.	Indirect beneficial impacts to vegetative resources may occur on 48,400 acres of lands identified to maintain wilderness characteristics.	Indirect beneficial impacts to vegetative resources may occur on 91,400 acres of lands identified to maintain wilderness characteristics.	Indirect beneficial impacts to vegetative resources may occur on 310,200 acres of lands identified to maintain wilderness characteristics.	Same as Alternative B.
Wildland Fire Management					
From Travel Management	Under all alternatives, motorized access for emergency purposes such as wildland fire fighting would not be limited by proposed Travel Management policies.				
Fish and Wildlife Management Including Special Status Species					
From Special Designations	Protection of wildlife habitat in 6,700 acres of ACECs.	Same as Alternative A.	Protection of wildlife habitat in 28,900 acres of ACECs.	Protection of wildlife habitat in 491,900 acres of ACECs.	Protection of wildlife habitat in 28,900 acres of ACECs.
	No Back Country Byways proposed.	Adverse impacts to wildlife habitat from 220 miles of Back Country Byways.	Adverse impacts to wildlife habitat from 76 miles of Back Country Byways.	No Back Country Byways proposed.	Adverse impacts to wildlife habitat from 21 miles of Back Country Byways.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed plan)
Fish and Wildlife Management Including Special Status Species (cont.)					
From Special Designations cont.	No impacts identified from NRT.	Impacts to riparian habitat and disturbance of wildlife from construction and use of a five-mile extension of the Betty's Kitchen NRT.	None identified.	None identified.	None identified.
From Travel Management	No impact to Sonoran desert tortoise habitat.	Adverse impacts to wildlife habitat from 1,800 acres of Open OHV Management Areas within WHAs and 650 acres within Category III Sonoran desert tortoise habitat.	Adverse impacts to wildlife habitat from 1,700 acres of Open OHV Management Areas within WHAs and 600 acres within Category III Sonoran desert tortoise habitat.	No impact to Sonoran desert tortoise habitat.	No impact to Sonoran desert tortoise habitat.
From Lands and Realty Management	No impacts from disposals identified.	Reduced habitat restoration opportunities for SWFL and yellow-billed cuckoo from disposal of leased land near the Colorado River.	None identified.	None identified.	Reduced habitat restoration opportunities for SWFL and yellow-billed cuckoo from disposal of leased land near the Colorado River.
	No impacts from disposals identified.	Disposal of 320 acres of Category III desert tortoise habitat.	Disposal of less than one acre of Category III desert tortoise habitat.	None identified.	Same as Alternative C.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed plan)
Fish and Wildlife Management Including Special Status Species (cont.)					
From Fish and Wildlife Management	None identified.	Beneficial impacts within 704,800 acres of the proposed Palomas Plain WHA.	Beneficial impacts to sand dune habitat in 59,400 acres of the proposed Dunes WHA.	Beneficial impacts to sand dune habitat in 59,400 acres of the proposed Dunes WHA and within 704,800 acres of the proposed Palomas Plain WHA.	Beneficial impacts to sand dune habitat in 57,500 acres in the proposed Dunes WHA and within 627,700 acres of the proposed Palomas Plain WHA.
From Wilderness Characteristics Management	None identified.	Indirect beneficial impacts to wildlife habitat may occur on 48,400 acres of lands identified to maintain wilderness characteristics.	Indirect beneficial impacts to wildlife habitat may occur on 91,400 acres of lands identified to maintain wilderness characteristics.	Indirect beneficial impacts to wildlife habitat may occur on 301,200 acres of lands identified to maintain wilderness characteristics.	Same as Alternative B.
Wild Horse and Burro Management					
From Wild Horse and Burro Management	HMAs not specifically addressed in previous plans.	Cibola-Trigo HMA allocations would reduce the number of nuisance animals. Herds would no longer be located on the east side of Highway 95. AML_2 would remain at 165 burros and 150 horses. Impacts to wild horse and burro habitat may occur from reductions or other changes in HMA allocations. HMA allocations may impact individuals or populations, when allocation changes result in removal (adoption or relocation) of wild horses and burros.			
Visual Resource Management					
From All Management Actions Regardless of Resource	Impacts to the landscapes of the public lands are disclosed through the identification of proposed projects' anticipated contrasts to the landscape's existing form, line, texture, and color. Implementation of this RMP and any subsequent actions tiered to this RMP would seek to comply with the identified visual resource class objectives through design or mitigation.				

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Wilderness Characteristics					
From Special Designations	None identified.	None identified.	None identified.	Most of the proposed lands with wilderness characteristics would overlap with the proposed Palomas Plain ACEC, providing protective measures for these lands.	None identified.
From Vegetation Resources Management	None identified.	None identified.	None identified.	More parcels of land with wilderness characteristics contain non-native invasive species. Treatment of these species could negatively affect the experiences found in lands identified to maintain wilderness characteristics.	None identified.
From Fish and Wildlife Management	None identified.	The proposed Palomas Plain WHA would overlap with lands with wilderness characteristics in this alternative, benefiting lands with wilderness characteristics.	Same as Alternative B.	None identified.	Same as Alternative B.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Wilderness Characteristics (cont.)					
From Fish and Wildlife Management (cont.)	None identified.	None identified.	The potential impacts to naturalness, solitude, and primitive and unconfined recreation from seasonal hunting and wildlife habitat improvement projects would likely be more common than under Alternatives B or the Proposed Plan.	The potential impacts to naturalness, solitude, and primitive and unconfined re-creation from seasonal hunting and wildlife habitat improvement projects would likely be the most common under this alternative.	None identified.
From Travel Management	None identified.	Potential impacts to experience solitude from 0.400 miles of road per square mile in lands with wilderness characteristics.	Potential impacts to experience solitude from 0.563 miles of road per square mile in lands with wilderness characteristics.	Potential impacts to experience solitude from 1.002 miles of road per square mile in lands with wilderness characteristics.	Potential impacts to experience solitude from 0.400 miles of road per square mile in lands with wilderness characteristics.
From Lands and Realty Management	None identified.	None identified.	None identified.	Affected by 3,600 acres of proposed ROW Corridors north of the Town of Quartzsite.	None identified.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Wilderness Characteristics (cont.)					
From Mineral Resource Management	None identified.	None identified.	The potential impacts to naturalness, solitude, and primitive and unconfined recreation from mining and mineral leasing activities would be more common than under Alternatives B or the Proposed Plan.	The potential impacts to naturalness, solitude, and primitive and unconfined recreation from mining and mineral leasing activities would be the most prevalent under Alternative D.	None identified.
Cultural Resources					
From Special Designations	Enhanced protection of cultural sites within 6,700 acres of ACECs.	Same as Alternative A.	Enhanced protection of cultural sites within 28,900 acres of ACECs.	Enhanced protection of cultural sites within 491,900 acres of ACECs.	Same as Alternative C.
	No Back Country Byways.	Potential impacts to cultural sites from 220 miles of Back Country Byways.	Potential impacts to cultural sites from 76 miles of Back Country Byways and 64 miles of the Highway 95 Scenic Byway.	None identified.	Potential impacts to cultural sites from 21 miles of Back Country Byways and 64 miles of the Highway 95 Scenic Byway.
From Livestock Grazing Management	Potential impacts to cultural resources within 1,005,800 acres available to livestock grazing.	Potential impacts to cultural resources within 680,900 acres available to livestock grazing.	Potential impacts to cultural resources within 428,300 acres available to livestock grazing.	None identified.	Same as Alternative C.
From Recreation Management	None identified.	Alternatives B, C, D, and the Proposed Plan would designate SRMAs and RMZs to identify and enhance targeted recreational opportunities and experiences.			

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Cultural Resources (cont.)					
From Travel Management	None identified.	Potential impacts to cultural sites on 3,800 acres of Open OHV Management Areas.	Potential impacts to cultural sites on 2,400 acres of Open OHV Management Areas.	None identified.	None identified.
	Reduced impacts on 1,200 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.	Reduced impacts on 3,200 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.	Reduced impacts on 3,500 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.	Reduced impacts on 66,000 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.	Reduced impacts on 5,100 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.
From Visual Resource Management	Protection of cultural sites within 183,000 acres of VRM Class I and II areas.	Protection of cultural sites within 709,600 acres of VRM Class I and II areas.	Protection of cultural sites within 782,900 acres of VRM Class I and II areas.	Protection of cultural sites within 817,200 acres of VRM Class I and II areas.	Protection of cultural sites within 786,400 acres of VRM Class I and II areas.
From Lands and Realty Management	Protection of cultural sites within 6,500 acres of withdrawn lands (plus 167,800 acres within Wilderness).	Protection of cultural sites within 3,600 acres of withdrawn lands (plus 167,800 acres within Wilderness).	Protection of cultural sites within 5,400 acres of withdrawn lands (plus 167,800 acres within Wilderness).	Protection of cultural sites within 8,300 acres of withdrawn lands (plus 167,800 acres within Wilderness).	Protection of cultural sites within 12,000 acres of withdrawn lands (plus 167,800 acres within Wilderness).
	None identified.	ROW Corridors cross three SCRMAs.	ROW Corridors cross seven SCRMAs.	Same as Alternative B	ROW Corridors cross six SCRMAs.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Cultural Resources (cont.)					
From Lands and Realty Management (cont.)	None identified.	Potential impacts to cultural sites at seven additional communication sites.	Potential impacts to cultural sites at five additional communication sites.	Potential impacts to cultural sites at two additional communication sites.	Potential impacts to cultural sites at four additional communication sites.
From Mineral Resources Management	Potential adverse impacts on 100 acres identified for community pits.	Potential adverse impacts on 800 acres identified for community pits.	Potential adverse impacts on 400 acres identified for community pits.	Same as Alternative A.	Potential adverse impacts on 700 acres identified for community pits.
	Beneficial impacts from 3,700 acres proposed for withdrawal from mineral entry in ACECs.	Same as Alternative A.	Beneficial impacts from 5,400 acres proposed for withdrawal from mineral entry in ACECs.	Same as Alternative C.	Beneficial impacts from 9,100 acres proposed for withdrawal from mineral entry in ACECs.
From Wilderness Characteristics Management	None identified.	Indirect beneficial impacts to cultural resource values may occur on 48,400 acres of lands identified to maintain wilderness characteristics.	Indirect beneficial impacts to cultural resource values may occur on 91,400 acres of lands identified to maintain wilderness characteristics.	Indirect beneficial impacts to cultural resource values may occur on 301,200 acres of lands identified to maintain wilderness characteristics.	Same as Alternative B.
Paleontological Resources					
From Special Designations	None identified.	Potential impacts from 5.0 mile extension of Betty's Kitchen NRT and 220 miles of Back Country Byways.	Potential impacts from 76 miles of Back Country Byways.	None identified.	Potential impacts from 21 miles of Back Country Byways.
	Reduced impacts in 6,700 acres designated as ACECs	Same as Alternative A.	Reduced impacts in 28,900 acres designated as ACECs.	Reduced impacts in 491,900 acres designated as ACECs.	Same as Alternative C.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Paleontological Resources (cont.)					
From Visual Resource Management	Potential adverse impacts in designated VRM classes III and IV (1,135,000 acres). Reduced impacts on 15,200 acres of VRM Class II.	Potential adverse impacts in designated VRM classes III and IV (608,400 acres). Reduced impacts on 541,800 acres of VRM Class II.	Potential adverse impacts in designated VRM classes III and IV (589,100 acres). Reduced impacts on 561,100 acres of VRM Class II.	Potential adverse impacts in designated VRM classes III and IV (500,800 acres). Reduced impacts on 624,800 acres of VRM Class II.	Potential adverse impacts in designated VRM classes III and IV (535,100 acres). Reduced impacts on 618,600 acres of VRM Class II.
From Travel Management	Potential impacts within the 400-acre Ehrenberg Sandbowl Open OHV Management Area	Potential impacts within 3,800 acres of Open OHV Management Areas.	Potential impacts within 2,400 acres of Open OHV Management Areas.	Same as Alternative A.	Same as Alternative A.
	Reduced impacts on 1,200 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.	Reduced impacts on 3,200 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.	Reduced impacts on 3,500 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.	Reduced impacts on 66,000 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.	Reduced impacts on 5,100 acres (non-wilderness) and 167,800 acres (Wilderness) of Closed OHV Management Areas.
From Lands and Realty Management	Potential impacts within 74,600 acres of ROW Corridors and 200 acres of communication sites.	Potential impacts within 129,900 acres of ROW Corridors and 300 acres of communication sites.	Potential impacts within 129,900 acres of ROW Corridors and 300 acres of communication sites.	Potential impacts within 91,300 acres of ROW Corridors and 200 acres of communication sites.	Potential impacts within 121,700 acres of ROW Corridors and 300 acres of communication sites.
From Mineral Resource Management	Protection of resources within 6,500 acres of withdrawn lands plus 167,800 acres within Wilderness.	Protection of resources within 3,600 acres of withdrawn lands plus 167,800 acres within Wilderness.	Protection of resources within 5,400 acres of withdrawn lands plus 167,800 acres within Wilderness.	Protection of resources within 8,300 acres of withdrawn lands plus 167,800 acres within Wilderness.	Protection of resources within 12,000 acres of withdrawn lands plus 167,800 acres within Wilderness.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Air					
From Travel Management	Continue existing 400-acre Ehrenberg Sandbowl Open OHV Management Area, which is outside of the PM_{10} non-attainment area.	3,800 acres of proposed Open OHV Management Areas. 1,900-acre Blaisdell Open OHV Management Area within the PM_{10} non-attainment area; Expanded Ehrenberg Sandbowl (800 acres) and Martinez Lake (1,100 acres) Open OHV Management Areas outside of the PM_{10} non-attainment area.	2,400 acres of proposed Open OHV Management Areas. 1,300-acre Blaisdell Open OHV Management Area within the PM_{10} non-attainment area; Expanded Ehrenberg Sandbowl (800 acres) and Martinez Lake (300 acres) Open OHV Management Areas outside of the PM_{10} non-attainment area.	Same as Alternative A.	Same as Alternative A.
Water					
From All Management Actions Regardless of Resource	Differences in impacts to water resources between alternatives vary according to the acreages open to mineral development, agricultural leasing, and grazing. However, the anticipated differences between the alternatives would be insignificant and minimal overall.				
Soil					
From Special Designations	None identified.	Soil disturbance from 5.0 mile extension of Betty's Kitchen NRT and 220 miles of Back Country Byways.	Soil disturbance from 76 miles of Back Country Byways.	Same as Alternative A.	Soil disturbance from 21 miles of Back Country Byways.
	Reduced impacts in 6,700 acres designated as ACECs.	Same as Alternative A.	Reduced impacts in 28,900 acres designated as ACECs.	Reduced impacts in 491,400 acres designated as ACECs.	Same as Alternative C.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Soil (cont.)					
From Visual Resource Management	Potential adverse impacts to soils in designated VRM classes III and IV (1,135,000 acres).	Potential adverse impacts to soils in designated VRM classes III and IV (608,400 acres).	Potential adverse impacts to soils in designated VRM classes III and IV (589,100 acres).	Potential adverse impacts to soils in designated VRM classes III and IV (500,800 acres).	Potential adverse impacts to soils in designated VRM classes III and IV (535,100 acres).
From Travel Management	Loss of soil productivity on Open OHV allocation at the 400-acre Ehrenberg Sandbowl.	Loss of soil productivity on 3,800 acres of Open OHV Management Areas.	Loss of soil productivity on 2,400 acres of Open OHV Management Areas.	Same as Alternative A.	Same as Alternative A.
	Reduced soil impacts within 1,200 acres of Closed OHV Management Areas plus existing protection of soil resources within 167,800 acres of Wilderness.	Reduced soil impacts within 3,200 acres of Closed OHV Management Areas plus existing protection of soil resources within 167,800 acres of Wilderness.	Reduced soil impacts within 3,500 acres of Closed OHV Management Areas plus existing protection of soil resources within 167,800 acres of Wilderness.	Reduced soil impacts within 66,000 acres of Closed OHV Management Areas plus existing protection of soil resources within 167,800 acres of Wilderness.	Reduced soil impacts within 5,100 acres of Closed OHV Management Areas plus existing protection of soil resources within 167,800 acres of Wilderness..
From Travel Management (cont.)	Motorized travel throughout most of the planning area would continue to be limited to existing routes. It is possible that there are additional existing routes which have not been identified on the proposed YFO route inventory, and there-fore, a slightly higher acreage of soil resources would continue to be impacted under Alternative A.	Motorized travel throughout most of the planning area would be limited to existing inventoried routes until the YFO Travel Management Network has been established. After the YFO Travel Management Network has been established, OHV use would be limited to *designated* routes only.			

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Soil (cont.)					
From Lands and Realty Management	Adverse soil impacts on 74,600 acres of ROW Corridors and 200 acres on six communication sites.	Adverse soil impacts on 129,900 acres of ROW orridors and 300 acres on 13 communication sites.	Adverse soil impacts on 129,900 acres of ROW Corridors and 300 acres on 11 communication sites.	Adverse soil impacts on 91,300 acres of ROW Corridors and 200 acres on eight communication sites.	Adverse soil impacts on 121,700 acres of ROW Corridors and 10 communication sites.
From Mineral Resource Management	Protection of soils on 6,500 acres non-wilderness plus 167,800 acres within Wilderness withdrawn from mineral development.	Protection of soils on 3,600 acres non-wilderness plus 167,800 acres within Wilderness withdrawn from mineral development.	Protection of soils on 5,400 acres non-wilderness plus 167,800 acres within Wilderness withdrawn from mineral development.	Protection of soils on 8,300 acres non-wilderness plus 167,800 acres within Wilderness withdrawn from mineral development.	Protection of soils on 12,000 acres non-wilderness plus 167,800 acres within Wilderness withdrawn from mineral development.
Public Health and Safety					
From Special Designations	None identified.	None identified.	None identified.	The proposed 4,500-acre Limitrophe ACEC designation could benefit proper management of the area and address public health and safety concerns.	None identified.
From Coordinated Management Areas	None identified.	The Limitrophe would be identified as a 4,500 acre Coordinated Management Area, which would emphasize addressing existing public health and safety issues.	None identified.	None identified.	Same as Alternative B.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Public Health and Safety (cont.)					
From Wild Horse and Burro Management	None identified.	Moving the HMA west of Highway 95 in Alternatives B, C, D, and the Proposed Plan would benefit public health and safety by reducing the risk of vehicles striking horses and burros crossing the highway.			
Social and Economic Conditions					
From Livestock Grazing Management	No changes to social conditions are expected to occur.	Same as Alternative A.	12 of the 16 allotments would no longer be available for grazing. The social impact to ranchers would be minimal because these allotments have not been grazed for many years. The five allotments that are actively grazed would remain available.	16 allotments would no longer be available for grazing, which would have adverse social impacts to ranchers using these areas. These impacts would be more adverse than Alternative C, because five of the 17 allotments are actively grazed.	Same as Alternative C.
	No changes to allotments would occur and no changes to economic conditions would be expected to occur.	Economic impacts would be the same as Alternative A.	428,170 acres currently grazed would not be affected. No significant changes in grazing fee revenues would be anticipated. Therefore, there would likely be no noticeable economic changes.	Adverse economic impacts would likely occur because revenues would no longer be generated by livestock grazing fees, and employment and personal income would be lost on a local level.	Economic impacts would be the same as Alternative C.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Social and Economic Conditions (cont.)					
From Recreation Management	No significant changes to social conditions would be expected to occur.	Beneficial social impacts would likely occur to visitors interested in developed and motorized recreational opportunities. Visitors seeking remote settings and more primitive recreation may experience adverse impacts due to conflicts with developed and motorized uses.	Social impacts under Alternative C would be similar to those addressed under Alternative B; however, impacts would be balanced between visitors seeking developed and motorized uses and those seeking more remote and primitive uses.	Visitors seeking remote, primitive, and non-motorized types of recreation would experience beneficial impacts. Adverse social impacts may occur to those visitors seeking an increase in recreational facility development and motorized access.	Social impacts would be the same as Alternative C.
	No significant changes to economic conditions would be expected to occur.	Beneficial economic impacts would likely result from an increase in visitors due to an emphasis on developed and motorized recreation.	Beneficial economic impacts would likely result from emphasizing a balance of multiple uses on public lands.	Economic impacts would be the same as Alternative A.	Economic impacts would be the same as Alternative C.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Social and Economic Conditions (cont.)					
From Travel Management	OHV Management Areas: 400 acres Open, 169,000 acres Closed, and 1,148,600 acres Limited. Beneficial social impacts may occur from the continued availability of Open and Limited OHV Management Areas. Adverse social impacts would occur from increased recreational use of routes under current policies and practices.	OHV Management Areas: 3,800 acres Open, 171,000 acres Closed, and 1,143,200 acres Limited. Beneficial social impacts would likely occur to those public users interested in OHV recreation. Adverse social impacts would likely be minimal, as access for both motorized and non-motorized uses would continue throughout the planning area.	OHV Management Areas: 2,400 acres Open, 171,300 acres Closed, and 1,144,300 acres Limited. Social impacts would be similar to those discussed under Alternative B.	OHV Management Areas: 400 acres Open, 233,800 acres Closed, and 1,083,800 acres Limited. Social impacts would be similar to those discussed under Alternative A.	OHV Management Areas: 400 acres Open, 172,900 acres Closed, and 1,144,700 acres Limited. Social impacts would be similar to those discussed under Alternative B.
	No significant changes to economic conditions would be expected to occur.	Economic conditions would likely experience a slight increase due to potential increases in OHV users.	Economic impacts would be similar to those discussed under Alternative B.	Economic impacts would be similar to those discussed under Alternative A.	Economic impacts would be similar to those discussed under Alternative A.
From Lands and Realty Management	74,600 acres of ROW Corridors and 200 acres on six communication sites.	129,900 acres of ROW Corridors and 300 acres on 13 communication sites.	129,900 acres of ROW Corridors and 300 acres on 11 communication sites.	91,300 acres of ROW Corridors and 200 acres on eight communication sites.	121,700 acres of ROW Corridors and 10 communication sites.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Social and Economic Conditions (cont.)					
From Lands and Realty Management (cont.)	Leases, permits, and easements would continue to be authorized on a case-by-case basis. No significant changes to social conditions would be expected to occur.	May adversely impact the public's perception of the recreational experience, particularly those that enjoy solitude and primitive areas due to an increased in motorized use and diminished scenic quality. Beneficial impacts would likely occur due to an increase in utility availability to the public and improved communication capabilities.	Impacts would be similar to those discussed under Alternative B, with the exception that this alternative proposes significantly less land available for disposal, therefore reducing potential adverse impacts to public land users.	Impacts would be similar to those discussed under Alternative A.	Impacts would be similar to those discussed under Alternative C.
	19,100 acres available for disposal.	46,900 acres available for disposal. Adverse impacts to social conditions may occur due to the increase in public land disposals as these lands may no longer be available for public use.	10,500 acres available for disposal.	8,200 acres available for disposal.	11,900 acres available for disposal.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Social and Economic Conditions (cont.)					
From Lands and Realty Management (cont.)	No significant changes to economic conditions would be expected to occur.	Economic impacts would be primarily beneficial due to an increase in ROW cCrridors and communications sites that would result in an increase in BLM revenues as well as an increase in employment related to construction and maintenance of corridors and sites in the planning area	Economic impacts would be similar to those discussed under Alternative B.	Economic impacts would be similar to those discussed under Alternative A.	Economic impacts would be similar to those discussed under Alternative B.
From Mineral Resource Management	Mineral resources on 100 acres managed for Salable Minerals in one community pit may result in adverse social impacts from increased demand of mineral resources as the planning area communities grow. This alternative may not meet public demand for mineral resources as the planning area grows.	Mineral resources on 800 acres managed for Salable Minerals in six community pits may result in beneficial social impacts from the continued and expanded availability of mineral resources to the community.	Mineral resources on 400 acres managed for Salable Minerals in three community pits may result in beneficial and adverse social impacts similar to those discussed for Alternatives B and E, but at a lesser scale.	Same as Alternative A.	Mineral resources on 700 acres managed for Salable Minerals in five community pits may result in beneficial social impacts from the continued and expanded availability of mineral resources to the community.

Table 2-32
Comparison of Impacts by Alternative
(cont.)

Environmental Element	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan)
Social and Economic Conditions (cont.)					
From Mineral Resource Management (cont.)	Economic conditions would remain relatively the same with regard to mineral resource management as no significant changes in resource availability would occur.	Beneficial economic impacts would occur regarding revenue, employment, personal income, and county tax bases because of expanded availability of mineral resources.	Beneficial economic impacts similar to those discussed for Alternatives B and E, but at a lesser scale.	Economic impacts would be the same as Alternative A.	Economic impacts would be the same as Alternative B.

CHAPTER 3.0
AFFECTED ENVIRONMENT

3.1 INTRODUCTION

Chapter 3 describes the environmental components of BLM-administered Federal lands within the planning area that would potentially be affected by implementation of the alternatives proposed and impacts described in the PRMP/FEIS. Key environmental components include:

- Air, Water and Soil Resources
- Vegetation Resources
- Fish and Wildlife Resources
- Wild Horse and Burro Management
- Wildland Fire Management
- Cultural Resources
- Paleontological Resources
- Visual Resources
- Wilderness Characteristics Management
- Livestock Grazing Management
- Mineral Resources
- Recreation Management
- Travel Management
- Lands and Realty Management
- Special Designations
- Public Health and Safety
- Social and Economic Conditions
- Environmental Justice

Information sources and analysis data utilized to write this chapter were obtained from directly related past RMPs, Management Framework Plans, Plan Amendments, and various other management planning documents from BLM. Information and data were also collected from many other related planning documents and research publications prepared by various Federal and State agencies, universities, and private publications pertaining to the resources found within the planning area. The purpose of this chapter is to provide a description of key resources found

within the existing environment of the planning area, which will be used as a baseline to evaluate and assess the impact of the five resource management alternatives. Descriptions and analysis of the impacts themselves are presented in Chapter 4, Environmental Consequences.

The CEQ regulations implementing NEPA direct agencies to reduce excessive paperwork by "incorporating by reference" relevant prior documents (40 CFR 1500.4(j)). BLM LUPs, along with supplements or documents tiered to those original LUPs, frequently present more detailed information on the affected environment of the BLM-administered public lands than can be presented in this PRMP/FEIS. Therefore, in an effort to reduce paperwork, the affected environment sections of the LUPs, supplemental, or tiered documents listed below are incorporated by reference.

USDOI BLM

1982	*FEIS, Proposed Grazing Management Program for the Lower Gila North EIS Area. Yuma, Mohave, Yavapai, and Maricopa Counties, Phoenix District, Arizona*
1983	*Lower Gila North Management Framework Plan. Lower Gila North Resource Area, Arizona*
1987a	*Yuma District RMP and FEIS. Yuma District, Arizona*
1987b	*Lower Gila South Final Wilderness EIS*
1988a	*Lower Gila South RMP and FEIS. Phoenix District, Arizona*
1988b	*Lower Gila South RMP Monitoring Plan*
1990b	*Lower Gila South RMP—Goldwater Amendment*
1992b	*Yuma District RMP Amendment*
1994b	*A Final Arizona Statewide Wild and Scenic Rivers Legislative EIS*
1994c	*Five Year Monitoring Program Planning Update for the Yuma RMP 1986-1991*
1994d	*Yuma District (Bill Williams) RMP Amendment*
1994e	*Yuma District (Havasu) RMP Amendment*
1996a	*Yuma District (Lands) RMP Amendment*
1997a	*Statewide Amendment for Standards and Guides (Arizona Standards for Rangeland Health and Guidelines for Grazing Administration)*
2002b	*North Baja EIS and Yuma District RMP Amendment*
2004c	*Arizona Statewide LUP Amendment for Fire, Fuels, and Air Quality*
2005c	*Amendment to the Lower Gila North Management Framework Plan and the Lower Gila South RMP*

3.1.1 DESCRIPTION OF PLANNING AREA

The planning area encompasses 1.3 million acres along the lower Colorado River in southwest Arizona and southeast California. It is configured in an area 155 miles long and up to 90 miles wide (see Chapter 1, Section 1.2, for additional planning area description). Northeastern portions of the planning area are in close proximity (less than 60 miles) to the Phoenix metropolitan area. The western boundary, approximately 150 miles east of San Diego, generally parallels the Colorado River to the west and includes land in California. The planning area is located in the counties of Yuma, La Paz, and Maricopa in Arizona and counties of Imperial and Riverside in California. The planning area boundary encompasses 5,035,000 acres of land with mixed ownerships. Within these counties, 1,318,000 acres, or 26 percent, are administered by BLM. Planning area acres and the percentage of BLM-administered lands within each county are presented in Table 3-1.

Table 3-1
Planning Area Acres within Arizona and California Counties

Location	Total County Area (acres)	YFO Administered Area (acres)	YFO administered Acres as a Percent of Total County Area
Arizona			
La Paz	2,880,000	660,800	22.9
Maricopa	5,904,600	89,400	1.5
Yuma	3,534,100	520,900	14.7
California			
Imperial	2,942,100	28,800	1.0
Riverside	4,608,000	18,100	0.4
Total	19,868,800	1,318,000	6.6

Adjacent land jurisdictions occupy approximately 5,034,983 acres within three Arizona and two California counties in the planning area. These land jurisdictions include AGFD, Arizona State Lands, Luke Air Force–BMGR, BLM Field Offices (Lake Havasu, Lower Sonoran, El Centro, Palm Springs, Hassayampa, and Needles), Reclamation, CDFG, Cibola NWR, Cocopah Indian Reservation, CRIT, Fort Yuma–Quechan Indian Reservation, Imperial NWR, Kofa NWR, MCAS–Yuma, YPG, and private land including regional irrigation districts. Approximately 26 percent of the acreage in the planning area (1.3 million acres) is BLM-administered land (Map 1-1). The majority, 89 percent, of BLM-administered land in the five counties is located within Yuma (676,156 acres) and La Paz (514,757 acres) counties, Arizona.

3.2 AIR, WATER, AND SOIL RESOURCES

3.2.1 AIR QUALITY

The existing air resource environment in the planning area may be characterized according to identification of the existing sources of air pollution in the region; the climatology of the region, which regulates the transport of emissions; and the existing air quality within the region. These three topics are discussed in the following sections.

A. CLIMATE

The planning area is located within the Lower Colorado River Valley subdivision of the Sonoran Desert, which is classified as a dry tropical climate characterized by hot summers, mild winters, low rainfall, high evaporation rates, and low humidity (Brown 1994). According to the Arizona Climate Summaries produced by the Western Regional Climate Center, mean maximum summer temperatures in the planning area range from 110° Fahrenheit at Mohawk to 104° Fahrenheit at Kofa Mine and Salome, Arizona. Mean minimum winter temperatures range from 33° Fahrenheit at Salome to 46° Fahrenheit at Kofa Mine (Western Regional Climate Center 2005).

The Sonoran Desert is characterized by a bimodal precipitation pattern (rainy season in both the winter and summer). The higher elevations in the planning area experience greater amounts of precipitation than lower elevations. Mean monthly precipitation varies from 0.06 to 1.4 inches throughout the year in Salome and from 0.01 to 0.5 inch in Yuma Valley (Western Regional Climate Center 2005). Because of the combination of high temperatures and low precipitation, the Lower Colorado River Valley is the driest subdivision of the Sonoran Desert (Brown 1994).

Prevailing wind directions are generally from the north in the fall and winter months, from the west-northwest and west in the spring, and from the south-southeast in the summer months. Wind speeds average 7.8 miles per hour annually (Western Regional Climate Center 2005).

B. AIR QUALITY

The CAA, enacted in 1970 and amended in 1990, authorized the Environmental Protection Agency (EPA) to set air quality standards and regulate emissions of pollutants into the air to protect human health and the environment from the effect of airborne pollution. The CAA authorized the EPA to achieve this objective by setting air quality standards and regulate emissions of pollutants into the air. EPA has established emission standards for mobile (e.g., automobile) and stationary (e.g., factories) sources for pollutant emissions. These controls are implemented in Arizona through EPA and the ADEQ.

The EPA has established National Ambient Air Quality Standards for seven pollutants: PM_{10} (particulate matter less than 10 microns in diameter), $PM_{2.5}$ (particulate matter less than 2.5 microns in diameter), carbon monoxide, nitrogen dioxide, sulfur dioxide, ozone, and lead. The standards for these pollutants are shown in Table 3-2. If the standards are violated in an area, that area is designated as being in “non-attainment” for that pollutant, and the State must develop a

plan for bringing that area back into "attainment." The State of Arizona has adopted the EPA standards for six of the seven pollutants, with the particulate matter less than 2.5 microns in diameter standard only recently being promulgated by EPA. All areas within the planning area boundaries meet these standards, with the exception of particulate matter.

Table 3-2
Federal and State Ambient Air Quality Standards (µg/m^3)

Pollutant	Averaging Time	Federal (NAAQS)	Arizona (AAAQS)	California (CAAQS)
PM_{10}	24-Hour	150	150	50
	Annual	50[a]	50	30
$PM_{2.5}$	24-Hour	65[b]	--	--
	Annual	15[c]	--	--
Sulfur Dioxide	Hourly	--	--	655 (0.25)
	3-Hour	1,300 (0.5)[d]	1,300 (0.5)[d]	--
	24-Hour	365 (0.14)	365 (0.14)	105 (0.04)
	Annual	80 (0.03)	80 (0.03)	--
Nitrogen Dioxide	Hourly	--	--	470 (0.25)
	Annual	100 (0.053)	100 (0.053)	--
Ozone	Hourly	235 (0.12)[e]	235 (0.12)	180 (0.09)
	8-Hour	(0.08)[f]	--	--
Carbon Monoxide	Hourly	40,000 (35)	40,000 (35)	20,000
	8-Hour	10,000 (9)	10,000 (9)	10,000
Lead	90-Day	--	--	1.5
	Quarterly	1.5	1.5	--

Notes: Annual standards are never to be exceeded. Other standards are not to be exceeded more than once a year. The numbers in parentheses are in parts per million.
NAAQS = National Ambient Air Quality Standards; AAAQS = Arizona Ambient Air Quality Standards
CAAQS = California Ambient Air Quality Standards
PM_{10} = particulate matter less than 10 microns in diameter; $PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
[a] To attain this standard, the expected annual arithmetic mean PM_{10} concentration at each monitor within an area must not exceed 50 µg/m^3.
[b] To attain this standard, the three-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 65 µg/m^3.
[c] To attain this standard, the three-year average of the annual arithmetic mean $PM_{2.5}$ concentrations from single or multiple community oriented monitors must not exceed 15 µg/m^3.
[d] Secondary standard.
[e] The one-hour NAAQS will no longer apply to an area one year after the effective date of the designation of that area for the eight-hour ozone NAAQS. The effective designation data for La Paz and Yuma Counties in Arizona is October 18, 2000.
[f] To attain this standard, the three-year average of the fourth-highest daily maximum eight-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 parts per million.

The best available data on concentrations of criteria air pollutants relevant to the planning area are discussed in the *Air Quality Baseline Report* (USDOI BLM 2005e).

C. EMISSIONS FROM ACTIVITIES ON PUBLIC LANDS

The planning area includes lands which do not meet the air quality standards for particulate matter and are in non-attainment for PM_{10} in the City of Yuma, Yuma County, Arizona. The primary sources of PM_{10} pollutants in the non-attainment area are windblown dust and human

activity. While windblown dust is generated in undisturbed areas, it is much more prevalent where the natural soils have been disturbed by human activity. Windblown dust emanates from agricultural fields, miscellaneous disturbed areas, unpaved roads, and urban disturbed areas. Other human activities contributing to particulate emissions include travel on paved and unpaved roads, and operation of permitted sources.

Primary activities within the planning area that generate air pollutants include prescribed burns, recreational travel on and off roads and trails, road construction, site preparation, mining, and livestock animals. Also, emissions from inside as well as outside the planning area are generated by mobile sources (primarily motor vehicles), stationary or point sources (including commercial and industrial operations), and area sources (primarily from agricultural operations, including burning of field residues).

Emission inventory data used to characterize the planning area was obtained from the EPA Air Data website. The most recent data available from this source at the time of this writing was 1999 data. Table 3-3 presents 1999 total annual air pollutant emissions for each county within the planning area. As the majority of the planning area is contained within Yuma and La Paz counties in Arizona, a detail of source category emissions in these counties for 1999 has been provided in Table 3-4.

Table 3-3
1999 Emissions by County (tons per year)

State	County Name	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Arizona	La Paz	2,493	3,085	22,739	169	3,207	1,133
Arizona	Yuma	8,506	10,438	58,214	572	12,850	3,254
Arizona	Maricopa	131,054	153,301	861,574	8,460	102,028	31,615
California	Imperial	11,738	15,694	86,766	791	24,918	7,519
California	Riverside	46,147	48,903	313,079	2,536	40,740	14,795

Source: EPA Air Data
VOC = volatile organic compound; NO_X = the sum of nitrogen dioxide (NO_2) and nitric oxide (NO) concentrations
CO = carbon monoxide (CO); SO_2 = sulfur dioxide (SO_2)
PM_{10} = particulate matter less than 10 microns in diameter; $PM_{2.5}$ = particulate matter less than 2.5 microns in diameter

Table 3-4
1999 Emissions by Source Group (tons per year)

Source Group	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Yuma County						
Fuel Combustion—Electric Utilities	20	372	202	10	19	19
Industrial Fuel Combustion	9	586	79	39	11	8
Other Fuel Combustion	88	273	228	8	46	45
Other Industrial Processes	0	0	0	0	92	44
Waste Disposal and Recycling	162	37	824	5	168	158
Highway Vehicles	3,391	5,583	39,166	202	163	127
OHVs	1,359	3,438	12,203	267	195	174
Miscellaneous Sources	279	148	5,512	41	12,156	2,680

Table 3-4
1999 Emissions by Source Group (tons per year)
(cont.)

Source Group	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
La Paz County						
Fuel Combustion—Electric Utilities	0	0	0	0	0	0
Industrial Fuel Combustion	0	0	0	0	0	0
Other Fuel Combustion	28	19	97	0	13	13
Other Industrial Processes	0	0	0	0	4	0
Waste Disposal and Recycling	8	4	119	0	12	12
Highway Vehicles	970	2,286	14,039	73	63	50
OHVs	684	579	2,512	51	58	53
Miscellaneous Sources	301	161	5,969	44	3,057	1,004

Source: EPA Air Data
VOC = volatile organic compound; NO_X = the sum of nitrogen dioxide (NO_2) and nitric oxide (NO) concentrations
CO = carbon monoxide (CO); SO_2 = sulfur dioxide (SO_2); PM_{10} = particulate matter less than 10 microns in diameter; $PM_{2.5}$ = particulate matter less than 2.5 microns in diameter

As seen in Tables 3-3 and 3-4, the majority of emissions in Yuma and La Paz counties are attributed to highway vehicles, OHV, and miscellaneous sources. The most predominant sources within the "miscellaneous sources" category are prescribed burning, road construction, and fugitive dust.

D. EMISSIONS FROM ACTIVITIES WITHIN THE YUMA PM_{10} NON-ATTAINMENT AREA

Yuma, Arizona experienced an exceedance of the 24-hour National Ambient Air Quality Standards for PM_{10} on August 18, 2002. The Yuma area is currently a moderate non-attainment area for PM_{10}. If the August 18, 2002 reading is not flagged as a natural or exceptional event, the exceedance would be considered a violation and result in the Yuma area being reclassified to a non-attainment area (Map 3-1).

ADEQ has flagged the exceedance as attributable to a high wind natural event under EPA's 1996 Natural Events Policy and ADEQ's 1999 *Air Quality Exceptional and Natural Events Policy. Emission estimates for 1999 and 2016*, provided in the *Technical Support Document, Yuma Natural Events Action Plan* (ADEQ 2004), are summarized in Table 3-5. For a detailed discussion of the major sources of PM_{10} in the Yuma PM_{10} non-attainment area see the technical support document.

Table 3-5
Yuma PM_{10} Non-attainment Area Emissions Summary

Emission Source	1999 Annual Emissions (tons)	2016 Annual Emissions (tons)
Agricultural and Prescribed Burning	40.7	34.1
Agricultural Tilling	3,572.0	3,572.0
Agricultural Cultivation and Harvesting	15.7	15.7
Windblown Dust	130,331.0	127,046.0
Unpaved Roads – Re-entrained Dust	10,183.0	5,537.0
Paved Roads	3,419.0	5,839.0
Road Construction	6,761.0	10,702.0
General Building Construction	53.8	87.7
Aircraft	15.5	16.4
Unpaved Airstrips	1.0	1.1
Stationary Sources	77.0	119.0
Railroad Locomotives	17.0	15.0
Total	154,487.0	152,985.0

Source: ADEQ 2004
Note: With the exception of windblown dust, all emission estimates are for the Yuma County portion of the non-attainment area.

E. SUMMARY OF EXISTING AIR QUALITY

With the exception of the Yuma PM_{10} non-attainment area, air quality in the planning area is generally excellent. ADEQ has taken several steps to improve the PM_{10} air quality in the Yuma non-attainment area with the goal of having the region reclassified as an attainment area.

3.2.2 WATER RESOURCES

A. GROUNDWATER

The ADWR designates the boundaries of groundwater basins within the State of Arizona. Portions of the Parker, Ranegras Plain, Lower Gila, Western Mexican Drainage basins, and the Harquahala Irrigation Non-expansion Area are within the planning area. The entire Yuma basin is within the planning area. The Western Mexican Drainage basin lies totally within the BMGR and the Cabeza Prieta NWR and thus is outside the scope of this planning document (Map 3-2) (ADWR 2004a).

The planning area encompasses a small portion of land along the California side of the Colorado River. In California, the groundwater basins that occur adjacent to the Colorado River within the planning area boundary are, from north to south, Rice Valley; Quien Sabe Point Valley, which shares its entire border with the Colorado River Indian Reservation; Palo Verde Valley; Palo Verde Mesa; Arroyo Seco Valley; and Yuma Valley (Map 3-2).

BLM manages lands directly adjacent to the Colorado River. In some places, no alluvium exists that could provide sustainable aquifer material. The water levels in alluvial deposits of the above-mentioned basins are in direct response to flow in the Colorado River (California

Department of Water Resources 2003). Descriptions of the groundwater basins in the planning area are presented below.

1. Yuma Basin (Arizona)

The Yuma basin discussion is derived from Overby (1997). Cenozoic basin fill alluvium composes the groundwater reservoir in the Yuma basin. Based on measurements taken in 1992, water levels are relatively shallow ranging from a few feet below land surface near the Gila and Colorado rivers to over 300 feet below land surface in the Yuma desert. Generally, water levels ranged from six to eight feet below land surface to more than 20 feet below land surface in the valleys. Near BLM-administered land in the Laguna and Gila mountains, water levels ranged from nine feet to 33 feet below land surface north of U.S. Interstate Highway 8 (I-8). Deeper water levels exist south of I-8, as the land elevation rises to what is known as the Upper Mesa. Not many wells exist in this area along the Gila Mountains. Near the International Boundary with Mexico in the southwest portion of the Yuma basin, water levels ranged from 90 to 111 feet below land surface.

Comparison of 1992 data and 1960 data shows that water levels in the Yuma basin have changed very little except along the International Boundary where water levels have decreased approximately 20 to 25 feet. This is in response to pumping from a well field east of San Luis, Arizona. The groundwater from this well field is delivered to Mexico.

Water from the Colorado River is the source of almost all groundwater recharge in the Yuma basin. The Gila River is also a source of short-term recharge during periods of flooding. Groundwater is a source of irrigation water only in the South Gila Valley and in small areas outside the established irrigation districts and on Yuma Mesa. The City of Yuma obtains its drinking water almost exclusively from the Colorado River (City of Yuma 2005). Groundwater is used for domestic drinking water supply east of the City of Yuma and by individual RV and mobile home parks. Groundwater may be used in sand and gravel operations on BLM-administered land.

Because recharge occurs mainly by Colorado River water, either directly or from irrigation returns, groundwater throughout the basin has total dissolved solids concentrations greater than 500 milligrams per liter, with many wells exceeding concentrations of 1,000 milligrams per liter. While not necessarily a health risk, high total dissolved solids may limit the use of such groundwater as a drinking water source based on aesthetic qualities such as taste, odor, and color.

2. Harquahala Basin and Irrigation Non-expansion Area

Discussion of the Harquahala basin and Irrigation Non-expansion Area is derived from Hedley (1990). The Harquahala basin is a typical alluvium-filled structural basin of the Sonoran Desert Basin and Range Province. The alluvium comprises heterogeneous deposits of clay, silt, sand, and gravel. The thickness of the alluvium varies from 0 foot at the mountain fronts to perhaps as much as 5,000 feet. Groundwater occurs in a regional aquifer within the alluvium in an unconfined condition. In the spring of 1989, depth to water in the regional aquifer ranged from 199 feet to 654 feet below land surface. The basin historically experienced major water level

declines beginning in the 1950s resulting in the designation of the basin as an Irrigation Non-expansion Area.

Irrigation is the primary use of groundwater in the Harquahala Irrigation Non-expansion Area. Wells and irrigated land are mostly on private land and land administered by the Arizona State Land Department. Little depth to water information exists closer to the mountain fronts (under land administered by BLM). Shallower depth to water might be expected in these areas, but the resource may also be limited due to the thinning of the alluvium.

Moderately high concentrations of dissolved fluoride and high concentrations of dissolved solids in parts of the basin cause the groundwater to be not suitable for drinking purposes without treatment.

3. Ranegras Plain Basin

Source material for the Ranegras Plain basin discussion is from Johnson (1990). Groundwater in the Ranegras Plain basin primarily occurs in Tertiary and Quaternary alluvium comprising clay, volcanics, conglomerate, and smaller amounts of sand and gravel. Groundwater in the basin generally flows to the northwest toward the Town of Bouse. Depth to water in the center of the basin, north of U.S. Interstate Highway 10 (I-10), generally ranged from 175 to 300 feet below land surface. I-10 forms the northern boundary of the planning area in this basin. The majority of the land in the basin south of I-10 is administered by BLM. There are little groundwater data available south of I-10. A review of well registration records indicates that water levels are probably in excess of 200 feet below land surface in this area (ADWR 2004a).

North of I-10, irrigation is the primary use of groundwater in the Ranegras Plain basin. There is a small amount of private land and land administered by the Arizona State Land Department south of I-10, where irrigation is also the primary use of groundwater. Some commercial/light industrial use occurs along I-10. Livestock watering is the primary use of groundwater on BLM-administered land within this basin.

4. Parker Basin

Little published information exists regarding groundwater conditions throughout the Parker basin. The Parker groundwater basin extends along the Colorado River from above the northwest boundary of the planning area roughly to Imperial Dam. The eastern boundary of the basin abuts the Ranegras Plain basin and runs through the Kofa NWR and along the Chocolate Mountains to the Colorado River near Imperial Dam. The basin includes the Cibola Valley and La Posa Plains sub-basins. The Cibola Valley sub-basin comprises the southern portion of the Parker basin along the Colorado River. Groundwater in this sub-basin is generally in hydraulic connection to the river. The La Posa Plains sub-basin may be considered an “internal” basin, separated from direct impact by flow in the Colorado River.

The CRIT Reservation covers most areas adjacent to the Colorado River from the northern boundary of the planning area to I-10. The majority of BLM-administered lands within the basin are in the La Posa Plain sub-basin surrounding the Town of Quartzsite, and in a narrow strip along Highway 95 between the YPG and the Kofa NWR. The remainder of BLM-administered land is limited to near the Colorado River in the Cibola Valley sub-basin.

In the northern part of the basin, the Colorado River alluvium overlies the Miocene Bouse Formation. It is reported that the Bouse Formation and the Colorado River alluvium constitute the main aquifer in the Parker Valley (Tucci 1982). Groundwater within the Colorado River alluvium is in hydraulic connection with and responds to changes in flow of the river. Near the river, water levels may be expected to be only several feet below the land surface. River water is the main source of agricultural irrigation. Drainage ditches lower the water table beneath cropland and maintain it at sufficient depths to reduce waterlogging and damage to crops (Owen-Joyce 1988). Further away from the river, groundwater is used as a domestic drinking water source, primarily in the Town of Quartzsite, Arizona. Groundwater is also used in sand and gravel and other mining operations in the Parker basin.

Most of the La Posa Plain sub-basin is undeveloped, with the Town of Quartzsite being an obvious exception. The Town of Quartzsite's population in 2002 was reported at 3,430. The influx of winter visitors causes the population to approach a temporary peak of 250,000. The town supplies drinking water to its population from two wells. One well draws water from 600 feet and the other from 1,000 feet below land surface (Quartzsite 2005). BLM provides water to the La Posa LTVA south of the Town of Quartzsite through a well located in the southeast portion of the LTVA.

The ADWR maintains water level index wells near the Town of Quartzsite. The water level in one well west of town near I-10 measured 494 feet below land surface in 2003. The water level had declined 10 feet over the past 10 years. The water level in a well six miles south measured 138 feet below land surface in 2004. The water level has declined 18 feet in the past 13 years (Overby 2005).

5. Lower Gila Basin

There is no recent publication describing the groundwater resource in the Lower Gila basin. Conditions are considered relatively stable precluding additional investigations (Overby 2005). Groundwater use in the Lower Gila basin is concentrated in the Wellton-Mohawk area immediately adjacent to the Gila River. The primary source of groundwater is imported irrigation water. The main water-bearing unit comprises the unconsolidated alluvium deposited by the Gila River and its ephemeral tributaries, and the unconsolidated to weakly consolidated alluvium in the valleys separating the mountains. The quality of the groundwater makes it marginal to unusable for irrigation. Most of the water used for irrigation is imported from the Colorado River. Low well yields in the rest of the basin allow for domestic, livestock watering, and small mining uses (Leake and Clay 1979).

B. GROUNDWATER QUALITY

Water quality varies with depth and location in the planning area. Total dissolved solid content in 1988 ranged from less than 1,000 to 4,000 milligrams per liter. Extensive groundwater contamination by agricultural pesticides and nitrates exists in the Yuma area (ADEQ 1998). Volatile organic compound contamination has been reported at the MCAS-Yuma (ADWR 2006).

The Town of Quartzsite, Arizona, is a small desert community of about 3,430 residents, mostly retired. Its economy is supported by a January-through-February gem show, which attracts as

many as a million annual visitors, many of whom are campers. This seasonal influx has caused a great burden on the upper groundwater aquifer compounding an existing problem of improperly maintained septic systems. The upper groundwater aquifer ranges in depth from 40 to 75 feet below the surface in shallow areas and from 400 to 500 feet below the surface in the deeper aquifer areas. ADEQ found high levels of nitrates in the groundwater of the shallow aquifer. An exhaustive study found that the contamination was caused by illegal dumping of waste and septage from RVs. A regional wastewater treatment system to address this problem is currently being planned. The system would include creating several RV dump stations around the community.

Known groundwater contamination also exists within Tyson Wash, northwest of the intersection of Highway 95 and Business Route I-10 in the Town of Quartzsite. Tetrachloroethene, a solvent commonly used in dry cleaning, is present in the groundwater approximately 40 to 70 feet below the ground (ADEQ 2001).

ADEQ's Ambient Ground Water Monitoring Program conducts sampling in groundwater basins throughout the State. Monitoring efforts were focused in 1998 to two areas (Maricopa and Yuma counties) based on the results of previous data collected. These areas have intense agricultural activities. Groundwater in these areas was tested for six constituents: pesticides; arsenic; fluoride; hardness; nitrates; radiochemicals (gross alpha and uranium); and total dissolved solids. The Yuma areas tested above average for nitrates and total dissolved solids. Generally, the highest nitrate concentrations tend to follow an arc starting in the Casa Grande area, continuing through Buckeye, and reaching Yuma through the lower Gila River area. The highest total dissolved solids levels were associated with agricultural areas along the Colorado, Gila, and Virgin rivers (ADEQ 2004).

The YFO recreation program manages water treatment facilities designed to treat sewage and protect water quality. At the Imperial LTVA there are currently two lined evaporative lagoons located at South Mesa. The YFO is permitted by the California Regional Water Quality Control Board to monitor the wastewater at these sewage lagoons per order number R7-2002-0007. The wastewater stream has been monitored on an annual basis and is in compliance for all designated criteria. The La Posa LTVA treats sewage through a leachfield system. The Quartzsite area does not produce enough water resources for a lagoon system. The leachfield is perched on a 210 foot layer of silt and gravel which overlays 1,000 feet of clay, safely separating it from any aquifer. YFO has been in compliance with water quality standards at this facility. Construction plans are being developed to augment or replace the existing system to meet current ADEQ standards.

Wells associated with the LTVAs provide drinking water for the winter visitors. Two wells have been developed in the La Posa LTVA. One drilled in 1985 supplies approximately 10,000 gallons a day. Another well, drilled in 2002 provides a smaller output of 1,500 gallons per day. Drinking water is also provided at the Imperial LTVA and at Squaw Lake. Two Reclamation piezometer wells were equipped and are being used for water source wells. The remaining piezometer wells in the area still allow for groundwater quality monitoring throughout the Imperial LTVA. There are several wells associated with mining claims and agricultural leases throughout the planning area. Should activity cease on the claim or at the lease, the wells would become Federal government property and the determination of whether or not the wells are capped would be made by BLM.

C. SURFACE WATER

1. Surface Water Features

Surface waters in the planning area can be divided into sub-basins or portions of the landscape that collect runoff from the surface, concentrate it into channels, and conduct the resulting flow to a definable outlet (Map 3-3). The National Water Resources Council and the U.S. Geological Survey standardized watershed boundaries in the Southwest (U.S. Water Resources Council 1978). The planning area occurs within the Lower Colorado River Region, which is further divided into smaller basins and then sub-basins. Sub-basins that make up the majority of the planning area include the Imperial Reservoir, Lower Colorado River, Lower Gila River, Tyson Wash, Bouse Wash, Centennial Wash, Tenmile Wash, San Cristobal Wash, Tule Desert, Rio Sonoyta, and Yuma Desert Area sub-basins.

Surface waters in the planning area range from large rivers to dry washes (Map 3-3). The two primary surface waters are the Colorado and Gila rivers, which total 152 miles and 107 miles in length, respectively (Table 3-6). Over 10,000 additional miles of ditches and washes also occur in the planning area. Most of these (92 percent) are intermittent (dry washes that only flow when sufficient precipitation falls within the watershed; flows can last anywhere from momentary to 24 hours depending upon the intensity of the storm). The remaining eight percent are considered perennial; however, these primarily consist of irrigation ditches and canals. There are no perennial streams within the planning area.

Table 3-6
Lengths of Rivers, Ditches, and Washes in Planning Area

Surface Water	Length within Yuma Planning Area (miles)
Colorado River	152
Gila River	107
Other Ditches and Washes	10,595
Total Length in Planning Unit	10,854

Source: Arizona State Land Department, Arizona Land Resources Information System, and Reclamation 2001

Surface water information, including types, lengths, and locations, was provided by the hydrography layer obtained from the Arizona State Land Department, Arizona Land Resources Information System (converted in 1988 from U.S. Geological Survey 1:100,000 scale, digital line graph data). Additionally, surface water miles along the Colorado River within the planning area were obtained from Reclamation (2001).

Several dams occur within the planning area including the Palo Verde Diversion Dam, Imperial Dam, and Laguna Dam, all on the Colorado River, and the Morelos Dam at the Northerly International Boundary. Upstream of Morelos Dam, the main river channel carries water that is delivered to Mexico pursuant to the 1944 Water Treaty, along with occasional high flows. Normally, all of these water deliveries are diverted into Mexico's Reforma Canal at Morelos Dam. The diversity of surface water types reflects the varied topography, climate, and human modification of the landscapes.

Dripping Springs is the only perennial spring located on BLM-administered land within the planning area; it is an important source of water for several wildlife species. This microhabitat supports various riparian associated plant species and is an important oasis in the desert environment.

2. Surface Water Use

Despite a relatively dry climate, the Colorado River contains substantial surface water and serves as the primary water source in the planning area. The Gila River also flows occasionally, but most of the lower Gila River is ephemeral and flows only in response to precipitation or water releases from upstream dams (ADWR 2005). Aside from these major rivers and associated reservoirs, the only perennial surface water located on BLM-administered land in the planning area is Dripping Springs, located southeast of the Town of Quartzsite. This spring is used primarily by wildlife.

The Colorado River originates at about 10,000 feet elevation in the Rocky Mountains of Colorado and flows southwest for 1,470 miles to the Gulf of California (Sea of Cortez) in Mexico. It marks the International Boundary between Arizona and Mexico for 23.7 miles in the planning area. Before the construction of more than 20 dams along its route and tributaries, its flow regularly reached the Gulf of California. In total, the Colorado River drains 242,000 square miles in the U.S. and 3,000 square miles in Mexico.

The Secretary of the Interior is vested with the responsibility to manage the mainstream waters of the lower Colorado River pursuant to a body of law commonly referred to as the "Law of the River." The Law of the River includes, but is not limited to, Federal and State laws, interstate compacts, an international treaty, court decisions, Federal contracts, Federal and State regulations, and multi-party agreements.

In 1963, a decision of the U.S. Supreme Court made explicit the amount of water appropriated among the lower Colorado River states, as well as the amounts that had been implicitly "reserved" for Native American tribes and Federal public lands. This decision prompted funding of the Central Arizona Project, completed in the 1980s. The project comprises a mountain aqueduct through which water from the southern end of Lake Havasu on the Colorado River is pumped up and into an aqueduct that flows southward to the two cities of Phoenix and Tucson. A relatively short segment of this tunnel crosses the planning area near the northeastern boundary.

The headwaters of the Gila River originate in the Mogollon Mountains of western New Mexico. The river flows west across southern Arizona, draining 57,900 square miles before joining the Colorado River near Yuma within the planning area. Before dams were built on the Gila River upstream of the planning area, flow would occur during spring snowmelt and summer monsoon rains.

Within the planning area, most diversions from the Colorado and Gila rivers provide water for the large agricultural production area, but other uses are also supported. Within the State of Arizona, water withdrawals are prioritized into first through sixth water priorities, depending on when rights were originally claimed (USDOI Reclamation et al. 2004). BLM's water entitlements in the State of Arizona are fourth priority. As of July 2004, 348 surface water filings existed in the planning area, including rights and claims established under the Public Water Code

(1919), the Water Rights Registration Act (1974), and the Stockpond Registration Act (1977). Of these, 10 percent (35 filings) were filed by the BLM for wildlife and recreation uses (ADWR 2004a). The priority dates of BLM filings span from 1926 through 2001. The remaining filings include 20 filed by other Federal agencies, 37 by Arizona agencies or the University of Arizona, and 256 by private individuals, companies, or irrigation districts.

Surface water in the planning area is also used to support wildlife, livestock, agriculture, and mining. Wildlife catchments have been created in the planning area and are managed by AGFD. In total, 52 wildlife catchments exist in the planning area. In addition, wells, tanks, springs, and other water sources have been established for livestock and wildlife. BLM allotment permittees are also allowed to put in wells or catchments. Water in the planning area is limited. Refer to the Grazing Management section for additional details. Agricultural leases are obtained from the YFO; however, lessees must obtain their own irrigation water. Similarly, mining claimants must obtain their own water supply for mining activities on BLM-administered lands in the planning area.

3. Surface Water Quality

Several legal and policy requirements govern surface water quality, including the CWA, the Colorado Salinity Control Act, the Safe Drinking Water Act, the Clean Water Action Plan, EO 11988 on Floodplain Management, and BMPs. Under Section 303(d) of the 1972 CWA, states, territories and authorized tribes are required to develop a list of water quality limited segments. Waters on the list do not meet water quality standards or support beneficial uses, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires that these jurisdictions establish priority rankings for water on the lists and develop action plans, called TMDL, to improve water quality.

Surface water bodies are listed for water quality impairment in the lower Colorado River below Imperial Reservoir and the lower Gila River below Painted Rock Dam (local drainage) watersheds, two watersheds within the planning area. However, only one impaired water body, a segment of the Gila River, is proposed for listing under the 2004 303(d) listing within the planning area; the remaining impaired streams and lakes in these watersheds occur upstream of the planning area. The segment of the Gila River proposed for listing extends from Coyote Wash to Fortuna Wash. This segment was on Arizona's 1998 303(d) list for turbidity and boron (ADEQ 2005). It became part of the active monitoring program and is again proposed for listing in Arizona's 2004 303(d) list of impaired waters. The 2004 list identifies boron and selenium as the water quality issues in this segment. No TMDL assessments have been conducted to date (ADEQ 2005) in the planning area.

The proposed Gila River segment is currently under review as part of Arizona's 2004 303(d) list. On November 16, 2004, EPA partially approved and partially disapproved Arizona's 303(d) listing submission. EPA identified additional waters and pollutants that need to be included on Arizona's final 303(d) list. After EPA transmits the final 303(d) list to the ADEQ and following the public comment period, BLM will incorporate EPA's changes and will publish the final 303(d) *Listing Report*. California is currently developing the 2004 Section 303(d) list. On July 25, 2003, EPA approved California's 2002 303(d) list.

Arizona has been affected by drought conditions during most of the last decade (Arizona Governor's Drought Task Force 2004a). Recent conditions on the Colorado River, and economic and environmental drought impacts, have resulted in the creation of a statewide drought strategy. On March 20, 2003 Arizona Governor Janet Napolitano issued EO 2003-12 and established the Governor's Drought Task Force to address drought issues under the leadership of the ADWR (Arizona Governor's Drought Task Force 2004a). This effort emphasizes providing assistance to rural communities with potable water supply needs and includes a water conservation strategy (Arizona Governor's Drought Task Force 2004b).

Goals of the annual Arizona Drought Preparedness Plan include identifying the impacts of drought on water users, defining sources of drought vulnerability, establishing monitoring programs to alert water users and resource managers to the onset and severity of droughts, and preparing drought response options and mitigation strategies to reduce the impact of drought on water users. The plan identifies a process for communication and coordination between Arizona State agencies, Federal agencies (including the BLM), Tribal governments, State lawmakers, water users, resource managers, and scientists.

Management concerns related to surface water include the proliferation of giant salvinia throughout the lower Colorado River, potentially elevated levels of nitrate related to agricultural uses, the ongoing regional drought, and detectable levels of perchlorate in the Gila River (Green 2005). The withdrawal of water from the Colorado and Gila rivers causes depletions that are not entirely replaced by natural runoff. Much of the remaining water is lost to evaporation and groundwater recharge. Sedimentation from soil erosion (described in the Soil Resources section) may contribute to water quality degradation. Washes used as travel ways for vehicles occur throughout this dry region.

D. FLOODPLAINS

The YFO is subject to occasional high-intensity summer and fall rainstorms which can lead to flash flooding. The greatest hazard from these thunderstorms occurs in the usually dry washes, particularly those where human activities have modified the natural drainage system. The Colorado River is also subject to flooding throughout the winter and spring season from rapid snowmelt in the upper Colorado River Watershed.

The major flood control structures on the lower Colorado River are the Glen Canyon and Hoover Dams. The two major water storage levels in these reservoirs are regulated in association with the small reservoirs to provide flood protection, year-round water use, and hydroelectric power. In combination with these storage facilities, Reclamation and U.S. Army Corps of Engineers have developed extensive levee systems along many parts of the river to ensure safe passage of water during periods of high flow.

BLM-administered public lands along the lower Colorado River are used for recreation, wildlife habitat, and agriculture. Agricultural use of the floodplain is described in Section 3.15 Lands and Realty under the Land Disposal and Acquisition sections, wildlife use in the floodplain is described in Section 3.4, Fish and Wildlife, under the Riparian subsection, and the recreation use is described in Section 3.13, Recreation, of this chapter.

The base floodplain is an area expected to be inundated by floodwaters on the average of once in 100 years. Flood insurance rate maps prepared by the Federal Emergency Management Agency are generally accepted as the best delineations of base floodplains.

The Colorado River Floodway Protection Act, Public Law 99-450, was signed into law on October 8, 1986. The Act calls for the establishment of a federally declared floodway from Davis Dam to the Southerly International Boundary between the United States and Mexico. As required by the Act, Reclamation has developed maps that show the floodway boundaries. In accordance with Section 5 of the Act, these floodway maps shall have the same force and effect as if included in the Act. BLM adheres to the stipulations listed in the Act when it allows development in the floodway.

3.2.3 SOIL RESOURCES

Arizona is characterized by three physiographic provinces: the Colorado Plateau, the Basin and Range, and a Transition Zone of intermediate characteristics. The planning area lies within the Basin and Range physiographic province (Hendricks 1985).

The Basin and Range physiographic province occupies approximately the southwestern 40 percent of Arizona and is characterized by northwest-trending, block-faulted mountain ranges separated by deep, alluvium-filled basins. The province was created about 20 million years ago as the earth's crust stretched, thinned, and then broke into some 400 mountain blocks that partly rotated from their original horizontal positions. These mountains of late Precambrian and Paleozoic rock continue to erode and fill the intervening valleys with fresh sediment (USDOI USGS 2004).

Mountain ranges in the planning area generally are dominated by Tertiary volcanics with some Precambrian (Proterozoic) to Mesozoic igneous or metamorphic core complexes. The deep intermontane basins generally contain Paleozoic and Mesozoic sedimentary rocks overlain by Tertiary sedimentary and volcanic sequences.

The planning area occurs within the Sonoran Basin and Range ecoregion (EPA 2005). Ecoregions are large units of land and water that share similar climate, topography, and biological communities. Ecoregions can provide a spatial framework for ecosystem assessment, research, inventory, monitoring, and management (Weinstein et al. 2003). The Sonoran Basin and Range subecoregion contains scattered low mountains and has large tracts of federally owned land, including BLM-administered lands. Much of this area is used for military training.

The soils in the planning area are associated with a variety of climates, vegetative cover, topography, and geology. A detailed soil survey is available for the YPG (USDA SCS 1991), but it does not extend to other portions of the planning area. This soil survey and the STATSGO for Arizona (USDA NRCS 1994) were used to characterize soils in the planning area. The same approach was adopted in the Preliminary Assessment of Biodiversity Values and Management Framework Adaptation for the Expanded Kofa Complex and Yuma Resource Management Area in Southwestern Arizona (Weinstein et al.2003). Particular soil features were identified based on communications with BLM specialists and the Expanded Kofa Complex vegetation map (Weinstein et al. 2003).

In total, five soil suborders (specific soil types) are found in the planning area (Map 3-4). Almost 90 percent of the planning area consists of Aridisols (Table 3-7), a soil order (general soil type) of the USDA NRCS Soil Classification System. Aridisols are commonly found in dry environments that are low in organic matter and rich in deposited salts. Of the remaining 10 percent of the planning area, the largest area consists of Entisols, or soils of recent development with no or poorly developed soil horizons. Less than one percent of the planning area consists of badlands, rock outcrop, and water. Badlands occur in semi-arid landscapes that have been influenced by heavy river (fluvial) erosion. They are characterized by deep ravines and gullies, sharp ridges, and generally barren surfaces.

Table 3-7
Soil Order, Suborder, and Areas in Planning Area

Soil Type		Area within the Planning Area	
Soil Order	**Soil Suborder**	**Acres**	**Percent (%)**
Aridisols	Argids	1,679,900	33.4
	Orthids	2,736,600	54.4
Entisols	Fluvents	418,700	8.3
	Orthents	157,100	3.1
	Psamments	4,600	0.1
Badlands		6,500	0.1
Rock Outcrop		22,300	0.4
Water		8,300	0.2
Total within Planning Area		5,034,000	100.0

Source: STATSGO (USDA NRCS 1994)

In general, soils in the planning area developed under hot, dry conditions and are characterized as having thermic or hyperthermic temperature regimes and aridic or semi-aridic moisture regimes. The soil suborders Orthids and Argids occur throughout the planning area (Map 3-4). These soils are light-colored, contain little organic matter, and have at least one diagnostic subhorizon. Orthids can be calcareous throughout, but can also have accumulations of carbonates (calcic horizon), cemented carbonates (petrocalcic horizon), or cemented silica (duripan), with limited areas having accumulations of gypsum (gypsic horizon).

Argids can have clay (argillic horizon) or sodium (natric horizon) accumulations in the subsurface. Sonoran and Mohave Desert Scrub are the primary vegetation communities associated with Orthids and Argids soils in the planning area. Fluvents occur along the Gila River floodplain in the planning area. In general, Fluvents form in recent loamy or clayey alluvial deposits near stream channels or on piedmont slopes. Several vegetation communities, including Chihuahuan Desert Scrub, Plains and Great Basin Grassland, Great Basin Desert Scrub, and Great Basin Pinyon–Juniper Woodland are associated with Fluvents in the planning area.

Orthents occur along rocky areas in the planning area. These shallow soils develop over rock and are commonly found on steep slopes or very dry environments. Orthent soils are characterized by a lack of horizon development, because they form in dry climates and the parent materials are resistant to weathering. Sonoran and Mohave Desert Scrub are the primary vegetation

communities associated with Orthents. Psamments, poorly developed sandy soils, are associated with sand dunes in the planning area.

A. SENSITIVE SOILS

Sensitive soils occur throughout the planning area and include desert pavement, cryptobiotic (biological) soil crusts, stabilized sand dunes, and wetland soils. Sensitive soils are significant because of their susceptibility to erosion and their roles in supporting plants and wildlife. Soil disturbances (particularly to sensitive soils) last a long time in the arid southwest where estimated recovery times range from less than a century up to several millennia depending on the nature and intensity of the disturbance and soil properties (Belnap et al. 2001; Weinstein et al. 2003).

Desert pavements and cryptobiotic (biological) soil crusts are scattered throughout the planning area. Desert pavements form in the most arid parts of the Sonoran Desert, where annual rainfall is generally less than eight inches on average (Weinstein et al. 2003). Desert pavements occur on low flat ridges separated by narrow channels (rills). Examples of desert pavement within the planning area occur on the Palomas Plain (Weinstein et al. 2003). Desert pavement consists of a single layer of tightly packed pebbles and small stones, the surface of which is covered with a dark varnish. Extremely fine-grained soils of silt- and clay-sized particles are found beneath the pavement surface (McAuliffe 1999). Perennial plants are often absent from these surfaces; instead the pavements support a sparse seasonal cover of ephemeral species (Turner and Brown 1994). The tightly packed surface of desert pavement inhibits infiltration of precipitation and promotes runoff, which funnels water into the adjacent rills (Weinstein et al. 2003). Desert pavements may play a key role in hydrologic function by transferring rainfall and surface runoff from a large area and funneling it to nearby wooded wash channels that support trees and other vegetation (Turner and Brown 1994).

Cryptobiotic soil crusts are composed of highly specialized communities of cyanobacteria, mosses, and lichens. These biological crusts cover open spaces between vascular plants on relatively barren soils. Cryptobiotic crusts generally occur where vascular plant cover is sparse. Crust cover is generally greatest at lower elevation sites in semiarid areas (Belnap et al. 2001). The vertical and horizontal vascular plant structure of many semi-arid vegetation communities optimizes growth of biological soil crusts. Vascular plants create windbreaks and shade, influencing how much moisture and light reach the soil surface. They also trap leaf litter, keeping the interspaces free of substantial or persistent litter cover. Biological crusts in many regions are best developed in interspaces between shrubs. Invasive exotic plants generally decrease the biological crust cover in most ecosystems (Belnap et al. 2001). Stable or embedded rocks at or near the soil surface can increase soil crust cover by perching water and armoring the surface from physical disturbances. In general, more stable, fine-textured soils (such as silty loams) support greater crustal cover than less stable, coarse-textured soils (Belnap et al. 2001). North and east slopes generally favor crustal development.

Stabilized sand dunes form another sensitive soil in the planning area. Stabilized dunes have more dense vegetation cover than other dune types, which anchors sand in place. Sand dune complexes were identified as part of the vegetation mapping for the Expanded Kofa Complex (Weinstein et al. 2003). Dune systems within the Expanded Kofa Complex are principally

stabilized or semi-stabilized dunes with small areas of unvegetated, active dunes. Major dune complexes within the planning area include (1) the La Posa Dunes on the La Posa Plain in the northern portion of the planning area, (2) relatively small, isolated dune patches on the western arm of YPG near Cibola, referred to as the Cibola Dunes, (3) the northern portion of the Mohawk Dunes near Dateland; and, (4) the mesa dunefield in the southern portion of Yuma. Sand dunes serve as significant soil resources, because they support rare plant communities.

Wetland soils occur in areas along the Colorado and Gila rivers throughout the planning area. Overuse of natural surface water and groundwater resources and the loss of natural hydrological regimes have affected wetland soils (Weinstein et al. 2003). For detailed information about wetland and riparian areas, also refer to the Vegetative Resources section.

B. PRIME AND UNIQUE FARMLAND

The USDA NRCS formerly known as the Soil Conservation Service has defined Important Farmlands in Yuma and La Paz County into three categories, Prime Farmland, Unique Farmland, and Additional Irrigated Farmland. Prime Farmland is one of the most important resources of the Nation. This exceptional land can be farmed continuously or nearly continuously without degrading the environment. It will produce food, fiber, forage, feed and oilseed crops with the least amount of energy used. It is the most responsive to management and requires the least investment for maintaining the productivity.

Unique Farmlands are land other than Prime Farmland that is used for production of specific high-value food and fiber crops. It has the special combination of soil quality, location, growing season and moisture supply needed to produce sustained high-quality and/or high yields of a specific crop when treated and managed according to modern farming methods. Examples of such crops are citrus, seed crops, vegetables, and fruit.

Additional Irrigated Farmland has some properties that distinguish it from Prime Farmland including seasonal wetness, limited rooting depth or flooding.

All YFO agricultural leases within the planning area are Prime or Unique farmland. YFO currently authorizes approximately 1,528 acres of land in Arizona and California for agricultural lease (approximately 228 acres in California and 1,300 acres in Arizona). All cropland in YFO is irrigated cropland due to limited rainfall (three inches or less per year) (USDA NRCS 2005).

3.3 VEGETATION RESOURCES

The planning area is within the Lower Colorado Valley Subdivision of the Sonoran Desert. The extreme aridity characterizing this region is reflected in open plains covered sparsely with drought-tolerant shrubs, grasses, and cacti. Vegetation succession progresses very slowly in the desert, except where surface disturbance has taken place or moisture levels are high as a result of human influence. Despite the prolific seed-producing ability of many desert species, only a few plants survive to maturity due to low rainfall and harsh air and soil temperatures (USDOI BLM 1987b). Low precipitation also results in very slow perennial plant growth, and annual

production of woody materials in the planning area is especially low as a result of these slow growth rates. Average rainfall for the planning area is three inches annually.

3.3.1 TERRESTRIAL VEGETATION

Upland desert vegetation communities begin only a few hundred feet from the major river systems and associated riparian vegetation. Variation in slope, substrate, elevation, drainage, and disturbance regimes results in development of a variety of upland vegetation types. The upland vegetation, exclusive of riparian areas, can be generally split into two Major Land Resource Areas as classified by the USDA NRCS: Lower Sonoran Desert Scrub (sub-unit number 40-4AZ) and Sonoran-Mohave Desert Shrub Mix (sub-unit number 40-3AZ) (USDA NRCS 2005).

A. LOWER SONORAN DESERT SCRUB LAND RESOURCE UNIT

Vegetation in the Lower Sonoran Desert Scrub Major Land Resource Areas comprises the majority of the planning area. This class of vegetation occurs within the elevation range of 200 feet at Imperial Reservoir to 3,788 feet at Castle Dome Peak. Creosotebush (*Larrea tridentata*), bursage (*Ambrosia* spp.), and brittlebush (*Encelia* spp.) are common to all desert washes. Trees such as paloverde (*Parkinsonia* spp.), ironwood, catclaw acacia (*Acacia greggii*), and mesquite, are confined primarily to the major washes. The nearly level alluvial fans and plains have uniform stands of sparsely spaced shrubs dominated by creosotebush. Sand dunes are also common in some areas.

Upland plant communities in this Major Land Resource Area are dominated by desert shrubs and cacti. Creosote and white bursage are the major shrubs. Big galleta (*Pleuraphis rigida*) and longleaf Mormon-tea (*Ephedra trifurca*) dominate sandy sites, and hill sites are dominated by white brittlebush and teddybear cholla (*Opuntia bigelovii*) with an overstory of littleleaf paloverde (*Parkinsonia microphylla*), ocotillo (*Fouquieria splendens*), and elephant tree (*Bursera microphylla*). Trees common in bottom sites include mesquite, blue paloverde, catclaw acacia, smoketree dalea, and bitter condalia (*Condalia globosa*). Winter annual grasses and forbs are present following favorable moisture. Ephemeral production by these annual species is an important source of forage for wildlife and livestock in the planning area. Average annual production of these shrub lands is 200 pounds per acre (USDA NRCS 2005).

B. SONORAN-MOHAVE DESERT SHRUB MIX LAND RESOURCE UNIT

The Sonoran-Mohave Desert Scrub Mix Major Land Resource Area occurs on mountain slopes and relatively high elevations within the planning area (between 1,800 feet in the Mohave Mountains and 5,681 feet in the Harquahala Mountains). This type supports a rich mixture of flora in areas where coarse soils allow deep infiltration of rainwater. Some cacti, paloverde, desert ironwood, and crucifixion thorn (*Canotia holacantha*) grow in fairly dense stands in mountain washes. However, the rocky areas have sparse vegetation and appear barren. North-facing slopes in these areas often harbor very diverse vegetation communities relative to nearby habitats.

Plant communities in this Land Resource Unit are dominated by over-stories of large shrubs and low trees with understories of perennial grasses and forbs. Upland sites are dominated by large shrubs such as creosotebush, whitethorn acacia (*Acacia constricta*), littleleaf paloverde, crucifixion thorn, and Joshua tree (*Yucca brevifolia*) with understories of bush muhly (*Muhlenbergia porteri),* big galleta, threeawn (*Aristida spp*.), desert globe mallow (*Sphaeralcea ambigua*), desert marigold (*Baileya multiradiata*), and spiny golden head. Average annual production of these shrubby plant communities is about 600 pounds per acre. Soils of this Land Resource Unit are thermic (USDA NRCS 2005).

3.3.2 VEGETATION COMMUNITIES AND RESOURCE AREAS

Past efforts to map and describe vegetation in the planning area have been conducted at a very large scale or have relied on physiographic descriptions rather than maps to describe communities. Recent efforts using a combination of remote sensing, aerial photography interpretation, and ground-truthing have been used to create a more refined and detailed map of upland vegetation communities (Weinstein et al. 2003). Gap Analysis Program data available from the U.S. Geological Survey was used for fire management planning and used to initially characterize the vegetation of the planning area. This data was further augmented with information from a variety of sources and methods, including community models to provide a complete coverage representing the plant communities within the planning area (Map 3-5). A description of vegetation communities is found below (Hall et al. 2001; Weinstein et al. 2003). Additional community descriptions may be found in original sources and other regional vegetation descriptions such as: *U.S. Geological Survey GAP Analysis* (2001 and 2004) and Brown et al. (1979).

A. CREOSOTEBUSH—BURSAGE DESERT SCRUB

This community occupies flat to moderate slopes in valley bottoms and plains, low rolling hills, and lower bajadas extending from surrounding mountain ranges. This community is characterized by sparse cover of shrubs, co-dominated by creosotebush, white bursage (*Ambrosia dumosa*), triangle leaf bursage, ocotillo, white ratany (*Krameria grayi*), and jumping cholla (*Opuntia fulgida*) (Weinstein et al. 2003; Hall et al. 2001). The understory is typically sparse but may be seasonally abundant with ephemerals (Hall et al. 2001). This community is the most extensive of the upland communities and comprises the majority of the BLM-administered lands in the planning area.

B. PALO VERDE–MIXED CACTI–MIXED SCRUB ON BAJADAS

This community is present on the upper bajadas (coalesced alluvial fans) of desert mountain ranges, generally transitioning into Creosotebush-Bursage Desert Scrub on the lower bajadas and valley bottoms. A sparse canopy of saguaro cacti (*Carnegiea gigantea*) and/or leguminous trees and a patchy understory of large and small cacti, shrubs, herbs, and grasses characterize these areas (Weinstein et al. 2003; Hall et al. 2001). Bursage dominates the subcanopy layer and at the community level is at least a co-dominant and often a dominant in regard to overall abundance.

The sparse herbaceous layer is dominated by perennial grasses and forbs with annuals seasonally present and occasionally abundant (Hall et al. 2001).

C. PALO VERDE–MIXED CACTI–MIXED SCRUB ON ROCKY SLOPES

This community occurs on bedrock outcrops throughout low mountain ranges, often above the bajadas community. Vegetation cover may be sparse or absent, particularly on large rock outcrops and areas with more arid climates. Some species characteristic of the Mountain Upland community may be present on north facing slopes and canyons where environments are cooler and soils are likely to have more moisture (Weinstein et al. 2003). Species composition is generally comparable to the bajadas community, but additional associated species such as teddybear cholla, likely distinguish it (Hall et al. 2001).

D. ELEPHANT TREE–LIMBERBUSH ON XERIC ROCKY SLOPES

Composition in this community is similar to the Palo Verde–Mixed Cacti–Mixed Scrub on Bajadas community, but is characterized by the presence of elephant tree. Vegetation of this community may differ with aspect and substrate and may be best expressed on granitic slopes (Hall et al. 2001). This community is located entirely in the southern portion of the planning area.

E. WOODED WASH SCRUB

This community occurs in linear patterns in association with dry washes where intermittent, channel-constricted streamflow occurs. The composition of these communities is highly variable and dependent on site-specific drainage system characteristics and ecological processes sensitive to disturbance. Relative to surrounding communities, Wooded Wash Scrub communities are high in species richness and abundance. The relatively high vegetation production in these communities provides forage and thermal cover critical for the survival of many species of wildlife (Weinstein et al. 2003).

1. Valley Wooded Washes

This portion of the community is associated with dry washes within lower bajadas and valley bottoms where channels are dynamic. The overstory is typically dominated by deciduous trees including ironwood, blue paloverde, and mesquite (Weinstein et al. 2003). Understory species include Le Conte's barrel cactus (*Ferocactus cylindraceus*), big galleta, burrobush (*Hymonoclea salsola*), wolfberry (*Lycium* spp.), honey mesquite, smoke tree, and graythorn (Weinstein et al. 2003). Other shrubby cacti and sparse forbs and annual grasses may also be present (Hall et al. 2001).

2. Mountain Wooded Washes

This portion of the community occurs on higher gradients in the upper bajadas and mountains along generally static streambeds largely confined by bedrock. Vegetation is largely influenced by aspect and elevation (Weinstein et al. 2003). Vegetation typically consists of paloverde

species, ironwood, mesquite and succulents (Hall et al. 2001).

F. BRAIDED CHANNEL FLOODPLAIN

Vegetation in this community occupies islands within low gradient to broad valley floodplains where interweaving braided channels flow during flood events and the surface is periodically inundated. The processes of channel development and resultant changes in disturbance intervals and moisture regimes result in communities differing in structure and composition from those of Wooded Wash Scrub. The moisture regime and surface flow pattern are critical to many species established in these communities. Disturbances in these conditions (e.g., caused by roads) can have significant impacts on species establishment and survival within this community. Species that differentiate this type from the Valley Wooded Wash Scrub type include fishhook barrel cactus (*Ferocactus wislizeni*) and bush muhly (Weinstein et al. 2003). Ironwood and plants characteristic of the Creosotebush-Bursage Desert Scrub Community are also present (Hall et al. 2001).

G. MOUNTAIN UPLAND COMMUNITY

This community is characterized by an assemblage of relic chaparral and woodland plants that occur at the highest elevations, north facing slopes, and shaded canyons of the mountains located entirely within the Kofa complex. The most common plants within this type include shrub live oak (*Quercus turbinella*), one-seed juniper (*Juniperus monosperma*), and Arizona rosewood (*Vauquelinia californica*). Other species including barberry (*Berberis* spp.), crucifixion thorn, Bigelow's beargrass (*Nolina bigelovii*), desert willow, acacia, and perennial grasses are also present in this community. The precise composition is dependant on microclimates and substrates (Weinstein et al. 2003).

H. DUNE COMPLEX

The Dune Complex is found throughout the desert southwest and provides conditions that support unique vegetation communities and habitats. These areas are characterized by sparsely or unvegetated active dune fields, stabilized dunes with more dense vegetation cover that serves to anchor sand in place, and wind-blown sand sheets that overlie other soil substrates. Dunes have low species similarity and high rates of occurrence of endemic plants relative to vegetation of other regional habitats. Vegetation is characterized by an abundance of ephemeral plants generally absent from adjacent areas (Weinstein et al. 2003).

Within the planning area, dune vegetation is dominated by big galleta and white bursage. Other characteristic species include creosotebush, evening primrose (*Oenothera deltoidea*), desert sand verbena (*Abronia villosa*), hairy desert sunflower (*Geraea canescens*), desert twinbugs (*Dicoria canescens*), ocotillo, perennial and ephemeral forbs and grasses, longleaf Mormon tea, white ratany, Emory dalea (*Psorothamnus emoryi*), and littleleaf ratany (*Krameria parvifolia*) (Weinstein et al. 2003; Hall et al. 2001). Sahara mustard, an invasive non-native species, is also common within this complex (Weinstein et al. 2003).

I. CREOSOTEBUSH–BIG GALLETA SCRUB

This community is very limited in extent and is located on sandy soils and sand sheets extending from dunes. This type was not distinguishable at the scale of the map (see Map 3-5), but is expected to be located in some areas mapped as Creosotebush-Bursage Desert Scrub (Weinstein et al. 2003). Big galleta is the sole or dominant grass in the herbaceous layer, while creosotebush is the dominant shrub.

J. MESQUITE WOODLAND

This community is associated with wooded wash and riparian systems and provides habitat for a variety of vertebrate species. Occurrences of this community are remnants of a community historically found throughout the Desert Southwest, but now more limited in extent due to agricultural use and other factors. This community may include honey mesquite (*Prosopis glandulosa*) and screwbean mesquite (*Prosopis pubescens*), mixed with salt cedar (Weinstein et al. 2003).

K. RANEGRAS PLAIN

Vegetation within this unique community includes extensive stands of mesquite, big galleta, salt cedar, and bush muhly. Vegetation occurs primarily on the outer edges of the floodplain and is clumped in places. Much of the natural distribution of the Ranegras Plain, north of the planning area boundary, has been converted to agriculture (Weinstein et al. 2003).

L. OTHER (RIPARIAN, AGRICULTURAL, INDUSTRIAL, UNKNOWN)

Other areas either classified as riparian zones or other types representing human disturbances are found throughout the planning area. Riparian zones are classified and discussed separately.

3.3.3 AQUATIC VEGETATION

The lower Colorado and Gila rivers support a variety of native and non-native aquatic vegetation and algae. Aquatic vegetation is classified into three different types; submerged (generally rooted at the bottom and completely underwater), emergent (those which grow above the water in shallow areas) and floating (leaves that float above the surface). Submerged plants include sago pondweed (*Potamogeton pectinatus* and *P. foliosus*) curly leaf pondweed (*P. crispus*), American pondweed (*P. americanus*), brittle naiad (*Najas minor*), southern naiad (*N. guadalupensis*), watermilfoil (*Myriophyllum* spp.), Eurasian watermilfoil (*M. spicatum*), and coontail (*Ceratophyllum demersum*). Emergent plants include many of the species discussed in the riparian section such as cattail (*Typha* spp.) and bulrush (*Scirpus* spp.), as well as parrot feather (*C. emersum*). Floating plants include duckweed (*Lemna minor*), water pennywort (*Hydrocotyle* spp.), and giant salvinia.

3.3.4 RIPARIAN HABITATS AND WETLANDS

Riparian habitats are areas of transition between upland and aquatic ecosystems that are influenced by lateral water flow from adjacent stream channels (Brown et al. 1979). These habitats are among the most productive ecosystems and provide many important ecological functions and benefits including improving water quality by filtering out nutrients from runoff, maintaining stream temperatures by providing shade, and helping to control sediment loading into aquatic systems. The BLM definition of riparian is a form of wetland transition between permanently saturated wetlands and upland areas. Riparian areas exhibit vegetation of physical characteristics that reflect the influence of permanent surface or subsurface water. Typical riparian areas include lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, and the shores of lakes and reservoirs with stable water levels. Excluded are ephemeral streams or washes that lack riparian vegetation and depend on free water in the soil.

Riparian areas in the arid southwestern U.S. are important to a variety of vertebrate species (Szaro 1991). Disturbance plays an integral role in establishing and maintaining undisturbed southwestern riparian ecosystems, and flooding is the most common natural disturbance in these systems (Szaro 1991). Fire acts as periodic disturbance and influences the composition and structure of riparian ecosystems. Riparian ecosystems in the southwestern U.S. have been altered extensively since European settlement. Introduction of non-native plants have greatly changed species composition and structure of riparian communities (Ohmart and Anderson 1982).

Riparian vegetation supports particularly high species richness and abundance of several vertebrate groups compared to drier uplands (Ohmart and Anderson 1982; Szaro 1991). The riparian ecosystem maintains an exceptional biological diversity of both vertebrate and invertebrate species in a variety of habitat types, including areas colonized by non-native trees and shrubs. Naturalization of non-native plants has greatly changed the composition and structure of the riparian ecosystems and also altered the fire regime in the riparian areas through the accumulation of deciduous litter (Ohmart and Anderson 1982).

Riparian habitats within the planning area are generally associated with large river corridors and are found along the lower Colorado and Gila rivers on BLM-administered lands, Tribal, military, USFWS, State, and private lands (Map 3-6). Pockets of lakes and reservoirs are also scattered throughout the planning area. Sandy desert washes are not included in this discussion; they are classified as xeroriparian, or dependent upon intermittent water sources. The planning area is extremely arid outside of the two major river systems, and all of the vegetation communities depend upon the bimodal pattern of rainfall for germination and growth. Sandy desert washes are xeroriparian. Riparian vegetation types in the planning area vary from woody riparian, which is typically dominated by a mix of native cottonwood-willow, native mesquite, and non-native salt cedar communities to arrowweed (*Pluchea sericea*), saltbush (*Atriplex* spp.), and marsh communities (Brown 1994; Ohmart et al. 1988) (Map 3-7 and 3-8) (Table 3-8).

Table 3-8
Vegetation/Cover Types along the
Lower Colorado River and Lower Gila River Corridors within Planning Area

Vegetation/Cover Type	Characteristics	Total Mapped Acreage in Planning Area
Cottonwood–Willow	Willow and cottonwood at least 10% of total trees	2,700
Salt cedar	Salt cedar species constituting 80–100% of total trees	36,200
Honey Mesquite	Honey mesquite constituting 90–100% of total trees	2,900
Salt cedar–Honey Mesquite	Honey mesquite at least 10% of total trees	9,900
Salt cedar–Screwbean Mesquite	Screwbean mesquite at least 20% of total trees	6,000
Arrowweed	Arrowweed at least 90–100% of total vegetation	3,200
Atriplex	Saltbush species constituting 90-100% of total vegetation	600
Marsh	Open marsh (75% water) to nearly 100% cattail/bulrush	6,300
Creosotebush	Creosote 90–100% of total vegetation	900
Agricultural	Active or fallow, adjacent to riparian and aquatic habitats	1,500
Open Water	Open water	1,700
River	Mainstem plus tributaries and natural/artificial channels	10,000
Structured Open Water	"Lakes" formed by dams with variable water levels	400
Uplands	Vegetation dominated by upland species	1,400
Total		83,700

Source: Anderson and Ohmart 1984; Ogden 1998; Salas et al. 1996; Younker and Anderson 1997; USDOI Reclamation et al.2004 (LCR MSCP)

Riparian areas in the planning area provide several essential ecological functions including increasing water quality, providing water storage and groundwater recharge, maintaining stream water temperatures by providing shade, and controlling soil erosion. One of the most important functions of the riparian areas is providing food, water, and cover for wildlife. The riparian communities in the planning area are important to resident and migratory wildlife. The lower Colorado and Gila rivers associated with riparian habitats support several hundreds of species of wildlife including the federally endangered Yuma clapper rail, SWFL, and several other special status species. Riparian habitats of the river systems also provide essential stopover and nesting sites for a diversity of neotropical migrant birds, such as flycatchers, vireos, warblers, tanagers, and grosbeaks. Numerous species of raptors, waterfowl, other migratory and breeding birds, mammals, reptiles, fish, and amphibians all use the biologically diverse riparian habitats (USDOI Reclamation et al. 2004). Remnant native riparian habitats along the Colorado River corridor are valuable to native biodiversity and support hundreds of species of migratory and resident wildlife (USDOI Reclamation et al. 2004). The LCR MSCP provides detailed information concerning riparian land cover by reach in the lower Colorado River (USDOI Reclamation et al. 2004).

The extent of native riparian vegetation has decreased in the western U.S. since European settlement due to a variety of factors, including dam construction, river channelization, cattle

grazing, agricultural development, recreational development, naturalization of non-native plants, and alterations of historical fire regimes (Knopf et al. 1988; Szaro 1991).

Over the past several decades, the lower Colorado River has been channelized, dammed and diverted, resulting in significant hydrologic and ecological functional changes. The present regulation of natural hydrologic regime does not support extreme flow fluctuations mainly because of the presence of large, mainstem dams, resulting in reduced natural backwaters and reduced periods of inundation in adjacent floodplain lowlands. In addition, riparian woodlands and floodplains have been converted to agricultural and urban uses, and the species composition and structure of riparian ecosystems have been greatly altered by the invasion and naturalization of non-native trees and shrubs.

The Gila River is primarily an intermittent system that is dry for most of the year except during seasons with heavy rainfall and snow at the headwaters. However, for approximately 50 miles above its confluence with the Colorado River, the lower Gila River has stretches with perennial surface flows due to agricultural irrigation returns. Many species of riparian and marsh birds, one native fish species, and numerous species of native amphibians use this biologically diverse riparian area (Weinstein et al. 2003). Similar to the Colorado River, the Gila River floodplains have also been converted to agricultural and urban uses, and non-native trees and shrubs have displaced many of the native riparian vegetation (USDOI Reclamation et al. 2004).

The USFWS *National Wetlands Inventory* has not identified wetland types within the planning area. However, typical wetland types likely to be found in the planning area include riverine (e.g., lower Colorado and Gila rivers and their tributaries), palustrine (along the lower Colorado River and lower Gila River corridors), and lacustrine (e.g., Mittry Lake, Squaw Lake) systems. The riverine system includes all wetland and deepwater habitats contained within a channel that are not dominated by trees, shrubs, and persistent emergent plant species. The vegetation within the riverine system includes aquatic bed and non-persistent emergent plant species. Palustrine systems are generally adjacent to the riverine wetlands and include all wetlands dominated by trees, shrubs, and persistent emergents. Lacustrine systems include permanently flooded lakes, reservoirs, and intermittent lakes with extensive areas of deep water and considerable wave action (Cowardin et al. 1979).

A. COTTONWOOD–WILLOW

The native Cottonwood-Willow Community is found on deep, well-watered, loamy alluvial soils on floodplains of the lower Colorado and Gila rivers and provides suitable habitat for many species of wildlife and migratory birds, including the federally endangered SWFL (Holland 1986). Although the dominant trees do not tolerate permanent inundation, this plant community requires periodic winter or spring flooding to create new silt beds for cottonwood and willow seedling establishment (Brown 1994; Ohmart et al.1988). As a result of flow stabilization by dams that eliminates annual spring floods, stands of the Cottonwood–Willow Community are primarily decadent and show little evidence of seedling recruitment (Brown 1994). During uncommon spring flood events, cottonwood recruitment along bank lines occurs where conditions allow.

B. SALT CEDAR

Several species of salt cedar make up the Salt Cedar Community. These non-native plants have aggressively displaced the native riparian vegetation along the rivers, particularly in saline areas where native vegetation has been removed by fire (Brown 1994; Ohmart et al.1988; Turner and Karpiscak 1980). During the late fall, salt cedar will drop its leaves, increasing the salinity of topsoil. Through this action, the highly salt-tolerant salt cedar promotes the conditions that it tolerates better than native species such as cottonwood-willow. Salt cedar gradually replaces the native riparian communities and becomes well established as a monotypic community. It grows on sandy or gravelly soils and produces large numbers of very small seeds that are dispersed long distances by wind and water (DeLoach et al. 2000). Stabilized low flows, regular summer flooding of river bars, and the increase in fire frequency due to large amounts of litter produced by the vegetation create ideal conditions for establishment of salt cedar (DeLoach et al. 2000; Turner and Karpiscak 1980).

C. HONEY MESQUITE

The native Honey Mesquite Community is found close to the rivers and often forms monotypic stands of trees, but will also grow interspersed with other shrub species. This species does not tolerate prolonged inundation and historically grew on higher terraces in the floodplain. However, conversion of vegetated lands to agriculture and water regulation allowed the species to colonize areas closer to the rivers. Because it does not colonize or reestablish in open areas as readily as salt cedar, flooding, vegetation clearing, and increased fire frequency (promoted by salt cedar) can eliminate honey mesquite communities (Minckley and Brown 1982; Ohmart et al. 1988).

D. HONEY MESQUITE–SALT CEDAR

Honey Mesquite and Salt cedar communities form when salt cedar becomes well established in openings within the mesquite stand. Salt cedar gradually replaces honey mesquite creating a monotypic salt cedar stand (Ohmart et al. 1988). Another species of mesquite, screwbean mesquite, is found only in association with salt cedar in the planning area, reflecting the expansion of salt cedar and the displacement of screwbean mesquite (DeLoach et al. 2000; Ohmart et al. 1988).

E. ARROWWEED

Arrowweed Communities occur along drier portions of the river floodplain, along canyon bottoms and irrigation ditches, around springs, and in sandy or gravelly washes. This species has replaced cottonwood–willow in some areas because it tolerates higher soil salinities and greater groundwater depths, although in other areas it is being replaced by salt cedar (Brown 1994; Holland 1986; Ohmart et al. 1988; Sawyer and Keeler-Wolf 1995).

F. ATRIPLEX

The Atriplex Community is formed by several species of saltbush (e.g., *Atriplex canescens, A. hymenelytra, A. lentiformis, A. polycarpa*). This community occurs in saline areas, often between stands of cottonwood-willow or salt cedar and stands of mesquite (Brown 1994; Ohmart et al. 1988; Younker and Anderson 1997).

G. MARSH

The Marsh Communities occur in areas with long-term flooding such as oxbow lakes, backwaters, and around reservoirs with minimal daily and annual fluctuations in water level. Common vegetation of Marsh Communities includes cattail and bulrush that grow in water three to five feet deep, and common reed (*Phragmites australis*) that forms dense stands along the banks (Brown 1994; Ohmart et al. 1988). Marsh Communities are important habitat for the federally endangered Yuma clapper rail.

H. UNIQUE RIPARIAN RESOURCES

An important and unique stretch of the lower Colorado River is found in the southern most reach of the river, the Limitrophe area. This reach, located below Morelos Dam, is one of the few remaining segments of the lower Colorado River that has not been channelized and where fluctuating surface water from periodic dam releases and groundwater can sustain native vegetation such as cottonwood and willow trees when water is available. The resultant riparian habitat type sustains several wildlife species, including the SWFL and the Yuma clapper rail, and the habitat is also important for migratory birds and several other wildlife species that are not listed as special status species (USDOI Reclamation et al. 2004).

One special riparian habitat area along the lower Gila River is a large, contiguous stand of cottonwood-willow habitat located near the confluence with the lower Colorado River. This area supports a mixture of native riparian vegetation and provides important breeding habitat for the federally endangered SWFL (USDOI Reclamation et al. 2004). The Fred J. Weiler Green Belt area along the lower Gila River in Maricopa County, Arizona, is another important riparian area; a total of 6,900 acres of public land riparian habitat were withdrawn in 1954 under Public Land Order 1015 for use as waterfowl habitat.

3.3.5 PRIORITY SPECIES

Priority plant species are rare, unusual, or key species that are not listed as BLM sensitive or listed as threatened and endangered (Appendix 2-B). They are worthy of special treatment and indicate ecological health, biological diversity, and unique habitats. In the planning area, priority plants can be indicators, such as big galleta, which indicates rangelands historically in decline. Riparian floodplain habitats are indicated by cottonwood and willow. Desert wash woodlands have priority species that are Highly Safeguarded under the Arizona Native Plant Law. Other priority plants are unusual, at the edge of their distributional ranges or rare but not listed by any agency or rare plant protection program. For example, Thurber's stemsucker (*Pilostyles thurberi*)

occurs in desert scrub habitats. Alverson's foxtail cactus (*Coryphantha alversonii*) is present on rocky slopes.

3.3.6 SPECIAL STATUS SPECIES

Special status plants are those species listed by the USFWS, BLM, State of Arizona, and State of California. Species are offered varying levels of protection ranging from full protection, requiring "take" permits for activities which would negatively impact a species occurrence, to identification, but no official protection, for those species suspected of being at-risk or in decline.

The basic policy of BLM is to (1) conserve listed species and the ecosystems on which they depend and (2) ensure that actions authorized or carried out by BLM are consistent with the needs of special status species and do not contribute to the need to federally list any of these species. Protection is afforded to maintain the occurrence of these limited resources in accordance with existing laws and regulations to prevent their loss. Current Federal and State protection regulations and categories are summarized below. Uncommon plants not offered special status as described below are not currently protected.

BLM has certain responsibilities for all special status species and as such does not reiterate listings provided by other agencies. The BLM sensitive species list is meant to be dynamic. If information shows that a species needs to be included or removed, Field Managers may make nominations with information supporting such action. Criteria for BLM sensitive species include those that are:

- Under status review by the USFWS/National Marine Fisheries Service,
- Whose numbers are declining so rapidly that Federal listing may become necessary,
- With typically small and widely dispersed populations, or
- Those inhabiting ecological refugia or other specialized or unique habitats (USDOI BLM 2000).

A. DISTRIBUTION OF SPECIAL STATUS SPECIES

Within the planning area, sand dunes and isolated mountain ranges are of special interest due to the presence of endemic plants found there (Warren and Laurenzi 1987). Many of the species present on the Arizona Native Plant Law list are widely distributed throughout the planning area, while federally listed and BLM sensitive species are less common. No plant species listed by the USFWS are known to occur in the planning area. However, due to their known limited populations, undiscovered isolated plants or communities may be found in the planning area.

BLM sensitive species known to be present in the planning area include blue sand lily, sand food, scaly sandplant, Schott wire lettuce (*Stephanomeria schottii*), all of which are endemic to sand dunes, and longleaf sandpaper plant (*Petalonyx linearis*) which is found on exposed rocky slopes. See Appendix 2-B for a list of sensitive species. Additional plant species are included on the list because they are located on adjacent land of other jurisdictions, or are expected to occur but are not verified. Kofa barberry (*Berberis harrisoniana*) is also known to occur on rocky

slopes at upper elevations in the Kofa Complex but is not know to occur on BLM-administered lands in the planning area.

3.3.7 INVASIVE NON-NATIVE SPECIES

Invasive non-native species are an increasing problem on BLM-administered lands. Noxious and invasive weeds are listed by State and Federal law and are generally considered those that are exotics and negatively impact agriculture, navigation, fish, wildlife, or public health. Currently, there are over 350 species of non-native plants in the Sonoran Desert Ecoregion alone, many of which are considered to be significant threats to native flora and fauna (Lardiere and Bate 2003). Invasive non-native species present and potentially present in the planning area are noted in Appendix 2-B. Existing plan decisions and EO 13112 require that BLM discourage the introduction of "exotic" species on public lands.

Invasive non-native species have a variety of origins including use as grain seed, livestock feed, ship ballasts, packing material, reclamation, and ornamental plants. As a result of accidental (e.g., contaminated crop seed) and intentional (e.g., planted for forage or soil stabilization) introduction, many species have spread throughout the planning area and now conflict with other resources and uses. The spread of invasive non-native species is furthered through such mechanisms as OHV and watercraft use, hiking, camping, wildlife movement, livestock grazing, and natural processes. Invasive species tend to establish in disturbed areas as well as areas that have perennial water sources or that receive frequent runoff from intermittent precipitation (e.g., roadside ditches).

Invasive non-native species displace native plants as they compete for space, sunlight, water, and nutrients. As they become established, invasive non-native species can alter the ecosystem functions of the area they invade. Dramatic changes in composition can reduce the production of palatable forage for livestock and wildlife, and some species may be poisonous to livestock. Species with fast growth rates tend to increase the risk of wildfire due to the relatively high amount of fuel available.

Invasive non-native species control can occur in a variety of ways including chemical, prescribed fire, biological, and mechanical, or a combination of techniques. The degree and type of rehabilitation necessary after control efforts depends upon the treatment selected. In the planning area, YFO has evaluated and implemented many site-specific control plans for a variety of species. Control methods vary, but are generally categorized as mechanical (e.g., physical removal, heavy equipment, use of livestock), chemical (e.g., herbicide), or biological (i.e., introduction of natural predators such as insects or diseases to target the invasive species). Integrated Pest Management is being used to manage non-native invasive species. See Section 2.22.3 Typical Management Actions for Vegetation Treatments for Integrated Pest Management guidelines.

A. DISTRIBUTION OF INVASIVE NON-NATIVE SPECIES

The distribution of invasive non-native species is dynamic and varies in response to implemented control measures, management activities, and weather patterns (e.g., precipitation and

temperature). As such, the extent of infestations is difficult to accurately or precisely characterize. Regular surveys are conducted within the planning area to assess the general distribution of the most problematic species. Documented infestations of invasive non-native species are larger in size and more frequent in high-use areas than in low-use areas. Also, roads near Wildernesses and other remote locations have fewer and less severe infestations (Lardiere and Bate 2003). Invasive plant surveys are conducted annually by YFO personnel (Lardiere and Bate 2003), and Integrated Pest Management is being used to manage invasive species.

1. Salt cedar

Invasion of non-native plants in the Colorado River and Gila River systems has modified the riparian ecosystems resulting in lower diversity with monotypic stands of salt cedar and marginal quality habitats. Salt cedar, a non-native plant species known for its adaptation dealing with salinity and water stress, is well suited for the present hydrologic regime of the river systems and displacing native riparian vegetation, now dominating the lower Colorado River and much of the Gila River riparian communities. Only five percent of the riparian vegetation mapped by Reclamation along the lower Colorado River is native cottonwood-willow and honey mesquite communities. The remainder of the riparian vegetation is dominated by salt cedar. The majority of the riparian vegetation along the lower Gila River is also dominated by salt cedar, with young stands of cottonwood-willow and remnant mesquite wetlands scattered throughout the area (Weinstein et al. 2003). In addition to displacing native plant communities and altering the structure and species composition, salt cedar uses large amounts of water, increases soil salinity, decreases the quality of the habitat for wildlife, and increases fire frequency by producing large amounts of deciduous litter (DeLoach et al. 2000). Within the planning area, vegetation communities have been mapped for approximately 152 miles of the lower Colorado River and 10.2 miles of the lower Gila River riparian corridors (USDOI Reclamation et al. 2004). Salt cedar vegetation types comprise approximately 52,100 acres, while native riparian vegetation types consist of 15,700 acres (Table 3-8). Control measures must address both the treatment of salt cedar and soil remediation. Site specific treatment plans for salt cedar are commonly evaluated and implemented.

2. Giant Salvinia

Giant salvinia is an invasive floating aquatic fern classified by the Federal government and many states as a noxious weed. It has become a significant problem in the planning area. Giant salvinia flourishes in stagnant or slow moving water. Due to high water use and low recharge rates, portions of the lower Colorado River are both shallow and slow moving. Its backwater ponds and marshes are highly susceptible to giant salvinia infestations (Lardiere and Bate 2003). In areas of low flows, giant salvinia can cover the total water surface in a relatively short period, doubling in size every 2.5 to 10 days, depending on the time of year, water temperature, nutrients, and other water quality parameters. Mats can grow to over 2 feet thick and cover a 10-acre backwater in less than a month. In water systems that have visible flow, this plant is intermingled with riparian vegetation on the sides of the river and canal channels where riparian vegetation such as bulrushes and cattails grow, hampering treatment efforts (USDOI Reclamation et al. 2004). Giant salvinia restricts and impairs water flow, inhibits recreational use, creates operational and maintenance problems at pumping and diversion structures, damages fisheries and aquatic habitats by reducing open water areas and supplanting native vegetation, decreases water quality

by reducing nutrients and oxygen, and increases CO_2 and hydrogen sulfide concentrations (USDOI Reclamation et al. 2004).

Giant salvinia has been present in the lower Colorado River drainage since 1999. Surveys documented giant salvinia on the Colorado River and connected water bodies in varying degrees from Walters Camp into Mexico. A number of strategies have been implemented to control its spread (USDOI Reclamation et al. 2004). Eurasian watermilfoil (*Myriophyllum spicatum*) and parrrotfeather (*Myriophyllum aquaticum*) are other non-native aquatic plants documented within the planning area. Native aquatic plants such as spiny naiad, coontail, and sago pondweed also grow readily throughout the aquatic environment and could be considered weedy. Several other non-native species have been documented to occur in varying degrees in riparian areas.

B. OTHER COMMON INVASIVE NON-NATIVE PLANTS

Upland invasive non-native species are now prolific throughout the planning area. The majority of Mediterranean grass (*Schismus arabicus* and *S. barbatus*), Sahara mustard, Bermuda grass (*Cynodon dactylon*), buffelgrass (*Pennisetum ciliare*), and iceplant (*Mesembryanthemum* spp.) infestations are located along roads, ROWs, washes, and material pits where disturbance has recently occurred. Bermuda grass is a popular turf grass that can be found in many residential areas as well as along roadsides where hay is frequently transported. Mediterranean grass has become common throughout most of the upland desert shrub communities and large desert washes (Lardiere and Bate 2003). Sahara mustard is well established on approximately 3,000 acres of the La Posa dunes and has been found in other undisturbed wildlands (Lardiere and Bate 2003). Infestations of leadplant (*Amorpha canescens*), Ravenna grass (*Erianthus ravennae*), and Bermuda grass were highly localized around perennial sources of water, namely dams and ditch banks.

C. COOPERATIVE WEED MANAGEMENT EFFORTS

The YFO is currently a member of two interagency groups created to identify and control invasive non-native plant infestations across jurisdictional boundaries. The King of Arizona Cooperative Weed Management Area (overseen by the Sonoran Desert Invasive Species Council) and the Lower Colorado River Giant Salvinia Taskforce are both weed management areas that include BLM-administered lands. Cooperation with such groups and other land management agencies is crucial for the future identification and control of invasive species on a regional scale (Lardiere and Bate 2003).

3.4 FISH AND WILDLIFE

Public lands administered by the BLM provide significant portions of the habitat requirements (food, cover, water, and space) for a diverse array of wildlife species. The habitats within the planning area and the wildlife species that rely on them rarely exist solely on BLM-administered lands and often extend across administrative boundaries to Tribal, State, private, and other Federal lands. More than 500 species of birds, mammals, reptiles, amphibians, and fish occur within the planning area as year-round residents, seasonal residents, or migrants (USDOI BLM 1987a). This diversity has strong ecological value and attraction for the public.

The AGFD and CDFG are responsible for managing the wildlife populations in their respective states. YFO coordinates closely with AGFD (Region IV) and CDFG (Region 6) to manage the diverse habitats that sustain these wildlife populations[1]. The YFO has developed several habitat management plans or other interdisciplinary activity plans in cooperation with AGFD that outline the goals and actions for managing wildlife habitats and populations on public lands within the planning area. Wildlife habitats and priority wildlife species within the planning area are discussed in these habitat management plans and are incorporated by reference. Habitat management plans that are applicable to the planning area include the *Laguna-Martinez Habitat Management Plan* (1988c) and the *La Posa Interdisciplinary Activity Plan* (1997c).

3.4.1 GENERAL WILDLIFE HABITAT

The planning area is located within the Sonoran Desert physiographic province, with the primary habitat type being Upland or Lowland Sonoran Desert Scrub. Vegetation types such as riparian, desert shrub, desert tree, grassland shrub, and agricultural lands are represented in the planning area. For more information on vegetation types within the planning area, see Section 3.3 Vegetation Resources.

Special habitat features in the planning area include cliffs, sand dunes, snags, springs, reservoirs, rivers, marshes, lakes, and islands. These habitats provide a wide range of variation in vegetation species composition, structural components, and food quality and availability, thereby hosting abundant and diverse wildlife. Maintenance of these and other habitat types is critical to the continued existence of diverse and viable populations of wildlife.

The structure, composition, and condition of the various habitat types directly influence the fish and wildlife species assemblages that inhabit them. The habitats within the planning area reflect the influence of a variety of past and ongoing human activities and disturbances, resulting in significant increases in some species populations, declines in others, and the modification of large blocks of habitat. Increased human development as well as continued water diversion is a pressure on wildlife and fish populations. In many Sonoran Desert Scrub and riparian habitats, the proliferation of invasive non-native plants has altered the structure and composition of the

[1]For example, see the Master MOU between the State of Arizona, Arizona Game and Fish Commission, and the DOI, BLM (effective date March 18, 1987, 10 pp.)

habitat, leaving both the vegetation communities and their fish and wildlife inhabitants at risk of disturbance, fragmentation, and loss from natural or human-caused events (e.g., wildland fire).

3.4.2 KEY HABITAT FEATURES

Riparian habitats make up approximately three percent of the public lands in the planning area. Riparian areas are one of the most productive and important habitats, providing for a great diversity of wildlife species. Riparian areas range in total size from more than 13,000 acres in the Laguna–Martinez area to isolated pockets of less than five acres scattered along the length of the various river systems (USDOI BLM 1987a). Some riparian areas still support native plant species, such as cottonwood, willow, mesquite, and arrowweed communities; however, much of the native riparian habitats on public lands within the planning area have been severely fragmented, degraded, or otherwise substantially altered, thereby affecting the wildlife populations that inhabit them. Large areas of riparian habitats have been invaded by the invasive non-native (and less desirable) salt cedar. Salt cedar is extremely susceptible to fire and, therefore, has dramatically altered the riparian community.

In the desert southwest, wildlife use riparian areas disproportionately more than any other type of habitat, and many species are riparian-obligates (i.e., use only riparian habitats). For example, within the planning area, more than 400 species are either directly dependent on riparian habitats or use them more than other habitats (USDOI BLM 1987a). In addition, the zone of influence of riparian habitats on wildlife species extends well beyond riparian boundaries into the adjacent desert communities. Many riparian-obligate wildlife species, as well as many native fish species, are either federally listed or considered special status species by the Federal government (USFWS and BLM) or State wildlife agencies in Arizona and California.

Other key habitat features within the planning area include:

- **Sand dunes**, a sensitive and unusual habitat in the low deserts of the planning area, host a variety of plants and wildlife, many of which occur in no other habitat. Limited sand dunes occur on BLM-administered lands within the planning area.

- **Mountain ranges** provide important habitat for desert bighorn sheep and other wildlife species that could not survive on the arid plains of lower elevations. Mountain ranges in the planning area provide some of the best remaining bighorn sheep habitat in the southwest, with stable populations in several areas.

- **Wildlife watering sites** including tinajas (natural water tanks in rock pools) and man-made water catchments provide important water sources for big game (particularly bighorn sheep in high elevations and mule deer in low elevations), predatory mammals, bats, birds, and bees, particularly during the harsh summer season. At least 83 watering sites occur on BLM-administered lands within the planning area, which include 52 water catchments.

- **Braided channel floodplains and valley desert wash woodlands** occur in extensive networks throughout the planning area, maintaining hydrologic connections with the Colorado and Gila rivers. These natural communities are areas of great species richness and abundance in the Lower Colorado River Valley Subdivision of the Sonoran Desert providing

important cover, forage, and dispersal habitat for nearly every wildlife species during some portion of their life cycle. For example, bats and neotropical migratory birds use desert washes extensively for foraging, resting, shading, cover, and (for some bird species) nesting (U.S. Army YPG 1995).

- **Abandoned mines and natural caves** are particularly important to bats for roosts and maternity colonies. Many of the bat species occurring in the planning area use abandoned mines at least part of the year. Horizontal mine shafts and natural caves also provide shelter for other wildlife, such as ringtail (*Bassariscus astutus*) and fox (*Vulpes* spp.) (U.S. Army YPG 1995).

3.4.3 GAME SPECIES

A. BIG GAME

Big game species are an important aesthetic and economic resource in Arizona. Four big game species (or subspecies) occupy BLM-administered lands within the planning area: mule deer, desert bighorn sheep, collared peccary (*Pecari tajacu*), and mountain lion. Habitat management is achieved cooperatively between YFO and AGFD or CDFG.

1. Mule Deer

Mule deer are considered one of North America's premier big-game species. The public has a high level of interest in this species for both hunting and viewing. Mule deer are found on both sides of the Colorado River throughout the planning area. Their populations are generally thought to be stable. Mule deer are the most numerous, adaptable, and widely distributed big game species within the planning area. Mule deer use, at least seasonally, all but the most rugged mountains in the planning area. They make extensive use of riparian vegetation adjacent to permanent water sources during the hottest months. During cooler months, and after seasonal rainstorms, deer are able to spread out over the adjacent desert where they use the heavily vegetated washes for feeding, thermal cover, and travel corridors.

Adequate food, water, and cover are essential to the survival of deer. Mule deer rely on shrub and forb species for much of their diet. Some use of agricultural lands is made, although little damage to crops is known to occur. The "green-up" or flush of green growth provides important seasonal forage resources for a diversity of wildlife species, including mule deer. Competition can be significant during this period, particularly in riparian drainage and wash areas where wildlife and livestock both tend to concentrate. Some competition between mule deer and wild burros may also occur in vegetated desert washes.

2. Desert Bighorn Sheep

Desert bighorn sheep are a high priority species that receive significant local, State, and national attention and interest. The planning area includes the largest unfragmented habitat for desert bighorn sheep in Arizona (Weinstein et al. 2003). Mountain ranges in the planning area provide some of the best remaining bighorn sheep habitat in the southwest, covering more than 30,000 acres, with stable populations in several areas. Bighorn sheep within the planning area are

occasionally used as a source population for translocation to other locations within Arizona. Water acts as a seasonal limitation to bighorn sheep distribution. During the hot dry summer months, sheep movements are confined to a limited radius around water. During cooler months and after seasonal rainstorms, sheep spread out over the rest of the habitat. Bighorn sheep in the mountain ranges surrounding the major rivers are able to use water along these rivers, when not excluded by development or recreationists. In addition, YFO and AGFD have cooperatively constructed several water catchments to provide adequate water during the hot, dry season for bighorn sheep inhabiting isolated mountain ranges or for populations that have been excluded from natural water sources by development or recreation. Sheep feed extensively year-round; perennial grasses are a major component of the diet in early spring and late fall when new growth is present, whereas annual forbs and grasses are seasonally important.

Special habitat features used by bighorn sheep include lambing grounds and migration corridors. Habitat fragmentation or human disturbance poses one of the major threats to bighorn sheep populations. Lambing grounds in the planning area are typically the highest, most rugged and most isolated portions of desert mountain ranges. Lambing is a critical period in the annual cycle of bighorn sheep, and disturbance of these areas during the lambing season can cause abandonment of the range and loss of lambs. Newborn lambs can be found every month of the year; however, the majority of lambing in the planning area occurs between January 1 and April 30.

Migration corridors are traditional movement paths bighorn sheep follow between adjacent mountain ranges. Roads, canals, and fences serve as barriers to bighorn sheep movements, and entire populations have been cut off from major portions of their range. Power lines and pipelines may impede bighorn sheep movements in the same manner. Thirteen migration corridors, not including those on the BMGR, have been identified by the AGFD. Two main migration corridors have been identified on lands administered by BLM. The first is between the Chocolate Mountains and the Castle Dome Mountains near Stone Cabin, Arizona. The route has been cut by a two-lane highway (Highway 95), a 161-kV transmission line, and two El Paso Natural Gas lines. Movement between the two mountain ranges still occurs; however it is unknown to what extent normal movements have been impacted. The second is in the Dome Rock Mountains where I-10 bisects the range. This migration corridor is cut by a four-lane highway, two five-strand barbed wire fences, and two high-power transmission lines.

3. Collared Peccary

Collared peccary, or javelina, are found within Sonoran Desert scrub (Arizona Upland subdivision) and semi-desert grasslands. Collared peccary are scattered in small numbers within the eastern portion of the planning area, although populations within this part of the species range are generally less abundant for hunting and big game management. The species has expanded northward as scrub and cactus have replaced native grasslands, although no population estimates exist. Collared peccary are opportunistic feeders that eat flowers and fruits of a great variety of plants.

4. Mountain Lion

Mountain lions are found in the rugged mountains of the planning area and in some riparian habitats where the major river systems flow through mountainous areas. No population estimates

exist; however, numbers are thought to be low. There is no problem with predation on domestic livestock within the planning area.

B. SMALL GAME, WATERFOWL, AND FURBEARERS

Small game species include game birds and cottontail rabbits (*Sylvilagus auduboni*), as well as a wide variety of waterfowl species. One or more small game species occur in virtually all vegetation types within the planning area.

Game birds common to the planning area include white-winged dove (*Zenaida asiatica*), mourning dove (*Zenaida macroura*0, Gambel's quail (*Callipepla gambelii*), and pheasant (*Phasianus* spp.). White-winged doves are summer residents, and mourning doves are yearlong residents in the planning area. Both species rely on riparian areas and vegetated desert washes for nesting and cover. Citrus orchards are also important, and both species are present to a lesser extent in desert and urban areas. Doves feed extensively on weed and agricultural crop seeds. Gambel's quails are a common-to-abundant permanent resident throughout the planning area, with a population peak in late summer. Populations are concentrated in riparian areas along the major rivers and near water sources in the desert. Other important areas include vegetated desert washes. Annual seeds, green growth, and some insect matter comprise the bulk of their diet.

Waterfowl species within the planning area include ducks (*Anas* spp.), geese (*Branta* spp.), coots (*Fulica* spp.), and gallinules (*Gallinula* spp.). The Colorado River is part of the Pacific flyway and acts as a major migration corridor for many waterfowl species. Open water along the river, as well as backwaters, marshes, and agricultural lands provide important cover, feeding, and resting areas. Most species of ducks and geese migrate through or are winter visitors only. Some species, such as mallards (*Anas platyrhynchos*), gadwalls (*Anas strepera*), and ruddy ducks (*Oxyura jamaicensis*) may nest in the planning area, although this is rare (USDOI BLM 1987a).

Cottontail rabbits are common within the planning area as well. Populations are concentrated along the major rivers in riparian areas adjacent to alfalfa fields.

Coyote (*Canis latrans*), bobcat (*Lynx rufus*), and gray fox (*Urocyon cinereoargenteus*) are the most important furbearers in the planning area in terms of harvest, monetary value, and recreational days provided (USDOI BLM 1987a). Leg-hold traps are not allowed as a means of harvest on public lands within Arizona. Other common species include beaver, muskrat (*Ondatra zibethica*), striped skunk (*Mephitis mephitis*), badger *(Taxidea taxus*), kit fox, and raccoon (*Procyon lotor*).

3.4.4 NON-GAME SPECIES

Non-game wildlife species, which include small mammals, birds (migratory birds and raptors), amphibians, and reptiles, are common in habitats of the planning area. Many of these species are important food sources for larger birds and mammals and important as environmental quality indicators.

A. SMALL MAMMALS

The planning area has a diverse, abundant mammalian fauna, including more than 60 species of mammals. While the distribution, ecology, and habitat needs of many of the non-game mammals are poorly understood (AGFD 2001), these species occupy a variety of habitats on public lands in the planning area. Many of these species have small, local populations that face a variety of threats, and some are tied to the severely altered riparian or native grassland communities (AGFD 2001). Twenty-two of Arizona's 28 bat species are found or expected to occur within the planning area (Weinstein et al. 2003), and 18 of these species are considered special status species (see Section 3.4.7 Special Status Species). The diversity of bats is perhaps due to the abundance of roost sites, including cliffs and abandoned mines, and the variety of foraging sites found on lands within the planning area (Weinstein et al. 2003). Foraging areas include springs, tinajas, extensive networks of wooded wash scrub and braided channel floodplains, and the riparian corridors along the lower Colorado and Gila rivers. BLM-administered lands within the planning area have not been systematically surveyed for bats.

B. BIRDS

More than 350 bird species occupy the various habitats of the planning area, most of which are non-game species. Many of these species breed within the planning area, while others migrate through or are seasonal (summer or winter) residents. The greatest variety and abundance of birds occur in the riparian and wetland habitats, which often provide oasis within the upland desert scrub habitat. Migratory birds represent a wide diversity of species, including shorebirds, waterfowl, passerines (perching birds), and raptors, and may breed or winter in any or all of the vegetation types within the planning area.

The planning area provides habitat for many species of neotropical migratory birds, which breed in the U.S. and/or Canada and winter from Mexico to South America. The AGFD has prepared the *Arizona Partners in Flight Bird Conservation Plan* (Latta et al. 1999), which identified 43 bird species (of the more than 280 breeding bird species in Arizona) in 13 major habitats for priority management and protection within the State. In addition, numerous associated bird species were identified that would benefit from management actions for the priority species. At least three major habitats and 12 priority bird species occur within the planning area. These major habitats and their priority bird species include Sonoran Desert Scrub (Costa's hummingbird [*Calypte costae*], gilded flicker [*Colaptes auratus*], rufous-winged sparrow [*Aimophila carpalis*], Le Conte's thrasher [*Toxostoma lecontei*], and purple martin [*Progne subis*]); Low Elevation Riparian Habitat (common black-hawk [*Buteogallus anthracinus*], western yellow-billed cuckoo, SWFL, and Lucy's warbler [*Vermivora luciae*]); and Freshwater Marshes (Yuma clapper rail, California black rail [*Laterallus jamaicensis coturniculus*], and American bittern [*Botaurus lentiginosus*]).

Several raptor species (e.g., eagles, hawks, owls) have been documented in the planning area. Nesting species include prairie falcon (*falco peregrinus*), red-tailed hawk (*Buteo jamaicensis*), golden eagle (*Aquila chrysaetos*), northern harrier (*Circu cyaneus*), great horned owl (*Bubo virginianus*), barn owl *(Tyto alba*), burrowing owl, and American kestrel (*Falco sparіverius*). Wintering migrant species include merlin (*Falco columbarius*), ferruginous hawk (*Buteo*

regalis), osprey (*Pandion haliaetus*), Cooper's hawk (*Accipiter cooperii*), and sharp-shinned hawk (*Accipiter striatus*). In addition, the Harris' hawk (*Parabuteo unicinctus*) has also been re-introduced into native habitat along the lower Colorado River through an interagency program. Precipitous rock formations and mature cottonwood, willow, and mesquite trees provide important nesting sites for raptors. Backwater lakes, riparian vegetation, and desert wash corridors provide suitable habitat for the prey base that supports the raptor population.

C. AMPHIBIANS AND REPTILES

Because the majority of the planning area's wildlife habitats are arid or semi-arid, with a smaller percentage of habitats associated with water, reptiles (more than 40 species) are more prominent than amphibians (at least 10 species). Many amphibians and reptiles are abundant and seasonally conspicuous, especially the desert-dwelling species. Among them are such commonly encountered species as spadefoot toads (*Scaphiopus* spp.); whiptail lizards (*Cnemidophorus* spp.); side-blotched (*Uta stansburiana*), tree (*Urosaurus ornatus*), and desert spiny lizards (*Sceloporus magister*); gopher (*Pituophis melanoleucus*) and kingsnakes (*Lampropeltis* spp.); desert iguana (*Dipsosaurus doralis*); and western diamondback (*Crotalus atrox*) and mojave (*Crotalus* scutulatus) rattlesnakes. Two non-native species, bullfrog (*Rana* catesbeiana) and softshell turtle (*Apalone* spp.), have also become widespread and locally abundant. The distribution and status of many native amphibians and reptiles is not well known (AGFD 2001).

3.4.5 FISH

The rivers, lakes, and reservoirs occurring within the planning area support more than 35 native and non-native fish species. The Colorado River contains an extensive warm water fishery, providing a quality sportfishing experience. Common sportfish include striped bass (*Morone saxatilis*), largemouth bass (*Micropterus salmoides*), bluegill (*Lepomis macrochirus*), black crappie (*Pomoxis nigromaculatus*), carp (*Cyprinus carpio*), flathead catfish (*Pylodictis olivaris*), and channel catfish (*Ictalurus punctatus*). Riparian communities, backwater areas, and marshlands on BLM-administered lands and Reclamation-withdrawn lands provide important nesting, foraging, and cover habitat for many fish species. Activities occurring on upland terrestrial habitats can affect the water quality and other attributes of these aquatic habitats.

Because of human-induced habitat changes, native fish in the planning area now occupy a small portion of their former ranges, if they are present at all. There are no surface waters within the planning area that support a completely native fish fauna (AGFD 2001). Historically, the lower Colorado River, lower Gila River, and their tributaries within were inhabited by 10 native fish species. Two of these native species, the machete (*Elops affinis*) and striped mullet (*Mugil cephalus*), are marine or brackish water species that probably never got much farther upstream than the Imperial Dam area (USDOI Reclamation et al. 2004). Occurrences of these two species vary with flows of the lower Colorado River as dams, water management, and floods permit (AGFD 2001).

Native freshwater fish species include Colorado pikeminnow, razorback sucker, bonytail chub, roundtail chub, flannelmouth sucker, desert pupfish, Gila topminnow, and woundfin. Of these eight native freshwater species, all but the flannelmouth sucker are federally protected by the

ESA, as amended, or are listed as Wildlife of Special Concern by AGFD. Only the razorback sucker and bonytail chub, both federally listed endangered species, are currently present within the planning area (see discussion in Section 3.4.7 Special Status Species).

3.4.6 OTHER AQUATIC SPECIES

Very little is known about Arizona's native crustaceans and mollusks (AGFD 2001), including those that may inhabit aquatic habitats within the planning area. Most of these species occur in isolated springs or other waters that have not been developed.

3.4.7 SPECIAL STATUS SPECIES

Special status species include federally listed (endangered or threatened), proposed, and candidate species, and designated or proposed critical habitat; species of concern managed under Conservation Agreements or Management Plans; BLM-sensitive species; and State-listed species (Arizona and California). For purposes of this discussion, "federally protected species" is a more narrowly defined term, referring to those species listed as endangered, threatened, or proposed under the ESA of 1973, as amended, including designated or proposed critical habitat, if applicable; as well as candidates for Federal listing. Several special status species occurring within the planning area were discussed in the previous 1985 Yuma District RMP (USDOI BLM 1987a) and other applicable LUPs for the YFO. However, additional species and designated or proposed critical habitats have been listed, or the species' status has changed since the time these plans were written. The most recent and complete list of special status species is considered in this section, also see Map 3-9 "Federally Listed Species North Field Office Area," Map 3-10 "Federally Listed Species South Field Office Area," and Map 3-11 "Sonoran Desert Tortoise Habitat Categories."

A. FEDERALLY PROTECTED SPECIES

Regarding federally protected species, eight federally endangered species, one federally threatened species, and one candidate species occupy or have suitable habitat on BLM-administered lands within the planning area (Appendix 2-B). Two federally listed species, desert pupfish and Gila topminnow, have historical habitat within the planning area, but no longer occur there. The northern aplomado falcon is currently extirpated from Arizona. The USFWS is proposing to establish a non-essential experimental population area within Arizona and New Mexico, with the expectation that reintroduced aplomado falcons would only persist within the Chihuahuan Desert in southeastern Arizona (USDOI USFWS 2005a). Release sites would only be on lands within New Mexico (USDOI USFWS 2005a), and the expected area of persistence in the Chihuahuan Desert would be outside the planning area; however, released birds could potentially disperse as far west as Yuma County within the planning area.

The 10 federally protected species that potentially occur within the planning area can be grouped as follows: one mammal, four bird, one reptile, and four fish species. The razorback sucker has designated critical habitat within the planning area. The SWFL, bonytail chub, desert pupfish, and desert tortoise (Mohave population) have designated critical habitat; however, no proposed

or designated critical habitat for these species occurs within the planning area. Recovery Plans, which identify objectives, criteria, and actions needed for recovery, have been developed for the 10 federally listed species potentially occurring in the planning area.

B. FEDERAL SPECIES OF CONCERN

Two species occurring within the planning area do not have Federal status under the ESA, as amended, but are Federal species of concern managed under a Conservation Agreement or Management Plan that BLM participates in. The FTHL is managed under a *Conservation Agreement*, signed in 1997, and the *FTHL Range-wide Management Strategy, 2003 revision* (FTHL Interagency Coordinating Committee 2003). YFO manages less than 1,000 acres of historic habitat for the FTHL in the planning area, much of this habitat is highly fragmented by urban and agricultural development. The Yuma Desert Management Area for the FTHL is located within the planning area, encompassing approximately 16,200 acres of non-military Federal lands and 114,800 acres of military lands. YFO does not administer any lands within the Management Area; all Management Area lands are administered by Reclamation or the military (the BMGR).

The Sonoran population of the desert tortoise is managed by BLM under the *Management Plan for the Sonoran Desert Population of the Desert Tortoise in Arizona* (Arizona Interagency Desert Tortoise Team 1996). YFO has classified desert tortoise habitat into three categories based on habitat quality, tortoise population densities, and management potential for tortoises. YFO manages both Category II (approximately 238,000 acres) and Category III habitat (approximately 269,000 acres) for the Sonoran population of the desert tortoise. While the planning area contains extensive areas of suitable habitat, Sonoran desert tortoise populations are at low densities and are patchily distributed, as their abundance and distribution are limited by shelter site availability due to the extreme heat and aridity of this region (Weinstein et al. 2003).

C. BLM SENSITIVE SPECIES

BLM-administered lands within the planning area have the potential for 84 wildlife and fish species that are BLM-sensitive species, State wildlife species of concern in Arizona, or State-listed species in California (Appendix 2-B). Several of the bird species have been recorded in the planning area, but are rare, non-breeding transient species. Species that occur within the planning area but do not inhabit BLM-administered lands, such as the Mojave fringe-toed lizard (*Uma scoparia*), are included in the list to characterize the entire planning area, and to recognize that during the life of the plan (20 years), some of these species could potentially occupy suitable habitats on BLM-administered lands. These 84 special status species can be grouped as follows: 18 mammal, 54 bird, seven reptile, three amphibian, and two invertebrate species. BLM considers these additional plant and animal species as priority species in management of public lands. In addition, many of these special status species, or the guilds to which they belong, have been identified as priorities for conservation and management in the LCR MSCP (USDOI Reclamation et al. 2004), the "Expanded Kofa Complex" management framework adaptation (Weinstein et al. 2003) of the Sonoran Desert Ecoregion conservation priorities (Marshall et al. 2000), and the Arizona Partners in Flight Bird Conservation Plan (Latta et al. 1999).

Brief descriptions of the current conditions of each of the federally listed, proposed, and candidate species, Conservation Agreement species, and Management Plan species that occur or have suitable habitat within the planning area are provided in Appendix 2-B.

3.4.8 KEY HABITAT FEATURES

The key habitat features described at the beginning of this fish and wildlife section also apply to special status species. Again, a majority of special status species within the planning area are either directly dependent on riparian habitats, braided channel floodplains, and valley wooded wash scrub (desert washes), or wetland habitats, or use them more than other habitats. In addition, all of the special status fish species that either occur or historically occurred in the planning area have suitable habitat within the aquatic habitats of the lower Colorado and lower Gila rivers. Appendix 2-B lists the habitat association for each federally protected species. Under the ESA, as amended, BLM *Manual* 6840, and the four-agency MOU,[2] BLM has a particular responsibility to conserve or improve habitats that are suitable for or occupied by federally listed, proposed, or candidate species to promote the recovery of these species. In addition to the general association of each species with its particular habitat types, some special status species have a habitat that has been designated as a critical habitat or classified as a priority wildlife habitat within the planning area. BLM must ensure that its actions within the planning area maintain or improve the designated critical habitat for the razorback sucker, BLM-categorized habitat for both the Mohave and Sonoran populations of the desert tortoise, and suitable habitat for the FTHL within the historical habitat identified in the *Rangewide Management Strategy*.

3.5 WILD HORSE AND BURRO MANAGEMENT

Wild horses and burros are protected by the Wild Free-Roaming Horse and Burro Act of 1971 (P.L. 92-195), as amended by FLPMA and the Public Rangelands Improvement Act of 1978 (P.L. 95-514). After the passage of the 1971 Act, BLM became the managing agency responsible for protecting these animals and their habitat. The goal of management within HMAs is to maintain a viable burro population in balance with the habitat and other multiple uses. This includes ensuring burros have access to water and adequate forage, and that resources are available for wildlife habitat and other uses (USDOI BLM 1980).

There are four HAs and seven HMAs managed by BLM in Arizona, containing approximately 210 wild horses and 2,500 wild burros. To maintain the wild burro population at approximately 2,000 animals statewide, Arizona BLM uses a monitoring program for vegetation and animal populations. When monitoring data indicate that the population has exceeded the vegetative community's capacity to maintain it, horses or burros in excess of the capacity are removed and offered to the public through the *Wild Horse and Burro Adoption Program*.

[2]MOA on ESA Section 7 Programmatic Consultations and Coordination among BLM, Forest Service, National Marine Fisheries Service, and USFWS, dated August 30, 2000.

3.5.1 CIBOLA–TRIGO HERD MANAGEMENT AREA

The Cibola-Trigo HA was identified in 1973 as supporting wild horses and burros in accordance with the Act, and is comprised of slightly more than one million acres located entirely within the planning area (Map 2-6a) (USDOI BLM 2005f). In 1980, through completion of the Cibola-Trigo HMA Plan and in conjunction with the Yuma District Management Framework Plan, the HA became an HMA. This was further supported with the completion of the 1987 Yuma District RMP. Wild horse and burro populations within the HMA roam freely on lands with different administrative responsibilities. Including the BLM, other agencies and entities involved in the management of portions of the HMA include the YPG, USFWS, and the State of Arizona.

In Arizona, the Cibola-Trigo HMA supports both wild horses and burros. During the summer months, the burros are concentrated along the Colorado River or other permanent water sources. In late fall or early winter, depending on rainfall, they disperse throughout the HMA. They begin their movement back to the river in about May or June as the temperatures rise and mesquite beans mature. The wild horses remain near a permanent water source year round (USDOI BLM 2005f).

Within the HMA, there are four separate areas. The portion of the current HMA north of I-10 proposed for elimination has had no burro or horse use documented or observed since 1989. Further, a vast majority of the public lands in this portion of the HMA were transferred to the Colorado River Indian Tribes in August, 2005, through the Colorado River Indian Reservation Boundary Correction Act (119 Stat 451). Small tracts of public lands in the Gila and Mohawk Mountains are not currently used by burros or horses. The only time burro use was identified was in 1973. These areas are not connected to the main portion of the HMA, but are contiguous to the BMGR. Preliminary planning documents in the early 1980s stated that burros were on the BMGR, and that their use potentially moved up these two ranges. The area proposed for elimination within the main body of the HMA east of Highway 95 is primarily U.S. Army withdrawn lands on YPG. This portion of YPG has been used for much of its history as a live fire and high-explosive impact zone. This activity presents an unacceptable danger to wild horses and burros and all attempts to manage these animals in such an environment.

In southeastern California, only the wild burro roams between the river and the Chocolate/Mules and Picacho HMAs. Wild burros are managed under guidelines found in the *Proposed Northern & Eastern Colorado Desert Coordinated Management Plan* (USDOI BLM 2002a). The HMA in California is dominated by intricately dissected alluvial fans and bajadas adjacent to the Colorado River. The uplands support sparse stands of creosote, ocotillo, and paloverde while the many drainages emptying into the river support dense stands of desert trees including paloverde, ironwood, catclaw acacia, and mesquite that are important sources of forage for burros (USDOI USDOI BLM 2005d). Forage use in these drainages serves as an indicator of overall resource capabilities. Immediately adjacent to the river are thick stands of salt cedar, *Phragmites*, and arrowweed. Further from the river, the bajadas give way to rugged mountains which receive minimal use depending on current climatic conditions (USDOI BLM 2005f).

In 1980, the Cibola-Trigo HMA Plan established the AML_2 for the planning area at 165 wild burros and 150 wild horses (USDOI BLM 1980). The AML_2 represents the number of animal units that are determined to be within the resource capabilities and compatible with other uses.

Throughout the 1980s, regular gathers reduced the population from 1,200 to between 250 and 400 burros. Due to budget and other constraints, few wild burros were gathered from 1990 through 1996; removals conducted were only for nuisance animals. In the early 1990s, the population grew rapidly, aided by extremely wet years in 1993 and 1994. By 1996, the expanding population of burros, and the beginning of a drought cycle, created overuse of the habitat within the HMA (USDOI BLM 2005f). There are currently approximately 200 wild burros and 160 wild horses within the HMA according to the most recent survey and removal information.

There have been few removals of wild horses within the HMA. The wild horse population tends to merely maintain its population. The horses tend to foal during the late winter and early spring, but few foals survive to be yearlings. Since 1987, only 131 wild horses have been removed. In 2004, 36 wild horses were gathered; there were no yearlings in this removal.

In January 1996, BLM and Imperial NWR initiated a joint planning process for the Imperial and Trigo Mountains Wildernesses. Wild burros were a major issue in this plan, and became a very volatile issue. A "Burro Subgroup" was formed to develop monitoring protocols and other management activities. In 1998 and 1999, a monitoring protocol was developed in collaboration with the NWR, AGFD, YPG, and BLM (USDOI BLM 2005f). Although the Imperial/Trigo Plan has not been completed, several agreements and commitments have been made that have guided management of wild burros on the Cibola-Trigo HMA since 1999 (USDOI BLM 2005f). These include:

- The AML_2 for wild burros will remain at 165.
- Monitoring data would be collected annually in accordance with the monitoring protocol and would be used to periodically review the AML_2 and guide removal decisions.
- All portions of the HMA east of Highway 95 would revert to HA Status and all wild horses and burros would be removed due to safety concerns.
- The Imperial and Cibola NWRs are recognized as not being within the boundaries of the HMA, however, because the refuges are adjacent to the river, wild burro use would be allowed. Such use would be maintained at minimum levels, with the objective being 20 percent use on key species at established monitoring sites.

3.5.2 HERD MONITORING

Vegetation data for such attributes as species composition, age class, hedging/form class, utilization, and bark stripping have been analyzed annually and combined through the entire monitoring period. The combined averages for these attributes form baseline data to evaluate the success or failure of future management actions (USDOI BLM 2005f).

In 1999, the YFO and AGFD formed a committee to develop a burro census technique for the State of Arizona. The committee agreed to initially test the Simultaneous Double Count that continues to be used for big game surveys. In May 2000, the AGFD and the YFO conducted a pre- and post-gather census of the Cibola-Trigo HMA to test the use of the methodology. The post-gather census estimated the population of wild burros in the HMA to be 396. Based upon

estimates of recruitment and removal, the population as of September 30, 2004 was approximately 170 burros.

Data relating to color, age, and sex are also collected on wild burros removed and shipped to a preparation facility. The overwhelming majority of burros captured are gray. Other colors include brown, pink, blue, black, and maltese. No rare or unique colors have been observed within the HMA. The ages are nearly uniform up to age eight and the jack-to-jenny sex ratio is approximately 1:1. Yearlings have averaged 16 percent of the total of animals removed, which supports an anticipated recruitment rate of 16 percent annually. Blood samples have been drawn from a sample of captured burros at the Kingman Preparation Facility, in accordance with BLM policy, on two separate occasions. Overall, genetic variability in the Cibola-Trigo HMA appears to be strong (USDOI BLM 2005f).

The only age and sex data for horses come from the 2004 gather. The ages range from six weeks to 11 years, but none captured were yearlings. Of the total gathered, 22 percent were foals, the remainder consisted of adults, 13.9 percent were 2-year olds. The male-to-female ratio was 0.44:1, and the foals-to-female ratio was the same. Colors identified through the gather included brown, bay, appaloosa, and dun.

3.6 WILDLAND FIRE MANAGEMENT

3.6.1 WILDLAND FIRE MANAGEMENT AND WILDLAND-URBAN INTERFACE

All BLM-administered public lands in Arizona have been assigned to one of the following land use categories for fire management: 1—Wildland Fire Use (areas suitable for wildland fire use for resource management benefit) or 2—Non-Wildland Fire Use (areas not suitable for wildland fire use for resource benefit). Within the planning area, there are no lands in Category 1. Most of the planning area is categorized as Category 2, with large areas dominated by desert scrub communities. Fire is not a part of the natural regime for the planning area and fires are typically human caused.

The goal of the Arizona BLM WUI Strategy is to implement an efficient and effective WUI fuels reduction program. One of BLM's goals for the fire management program is to work collaboratively with communities at risk of property loss from wildfire within the WUI to develop plans for risk reduction (USDOI BLM 2004d). The desired resource condition is to maintain fuels at non-hazardous levels in WUI areas to provide for public and firefighter safety (USDOI BLM 2004c).

Communities at risk within the planning area are shown in Table 3-9. Fire Management Units with communities of concern include the lower Colorado River (South) and the Gila River (Map 3-12). The current list is incomplete, because the wildland fire risk in WUI areas has not been determined. It would be difficult for the BLM to implement the fuels reduction program in the WUI without a wildland fire risk assessment.

The YFO has developed two *Community Wildfire Protection Plans* with La Paz County, one covering communities along the lower Colorado River and the other covering communities in the upland desert. The YFO is currently working with Yuma County, Arizona, San Bernardino and Imperial Counties, California to develop community-based Community Wildfire Protection Plans.

Table 3-9
Wildland–Urban Interface/Communities at Risk by Fire Management Units in the Yuma/Lake Havasu Zone

Fire Management Unit	Wildland Urban Interface/Communities at Risk
Lower Colorado River (South)	Yuma is on the 2001 Federal Register list as a community at risk from wildfire. There are many other communities of concern that are not on the 2001 list.
Gila River	Three communities of concern within the FMU. None of these communities are listed on the 2001 Federal Register as communities at risk. Wellton is located 15 miles from the western boundary of the FMU. Tacna is located in the middle of the FMU. Hyder is located near the eastern boundary of the FMU.
Sonoran Desert Wilderness (South)	No communities at risk within this FMU.
Sonoran Desert Scrub	No communities at risk from wildfire within this FMU on the 2001 Federal Register list.

Source: BLM GIS Data; Yuma/Lake Havasu Fire Management Plan (USDOI BLM 2004d)
FMU = Fire Management Unit

3.6.2 FIRE ECOLOGY

The historical fire regime patterns of Arizona lands vary in frequency (mean or median fire return interval) and magnitude (both intensity and severity), depending on major vegetation types, climate, elevation, fuel conditions, and other characteristics of the landscape. Fire history studies have been often used to characterize the historical range of variability. Natural resource managers use information on historical/natural variability to set management goals for ecological restoration based on natural processes of ecological systems. Prior to European settlement in the southwestern U.S., wildland fire was a common and widespread influence in shaping the landscape pattern (Paysen et al. 2000). Many of the historical wildland fires prior to European settlement were lightning induced fires, with some human induced fires by Native American tribes (Brown 2000).

Within the planning area, desert scrub communities are a major vegetation type, and wildfire was not historically part of the disturbance ecology for these communities. The natural fire regime of the desert scrub communities has long return intervals, with frequencies extending hundreds of years (McAuliffe 1999; Rogers and Steele 1981). In these communities, the distance between shrubs is too great for fire to carry, unless annual plant growth in the inter-shrub spaces is sufficient to carry fire. In some Arizona lands, cheatgrass (*Bromus tectorum*) has increased the frequency of fire in the desert ecosystems. Cheatgrass and other introduced non-native annual grasses are prolific seed producers and grow rapidly, especially during wet years. When these annual plants dry, they increase the risk of wildfires. With an increased frequency of fire, native grasses and shrubs cannot compete, resulting in a loss of native plant communities.

There is little evidence for extensive fires in southwestern floodplain ecosystems prior to European settlement. Lightning and human induced fires now occur across a variety of low-elevation riparian ecosystems where salt cedar has invaded (Ellis et al. 1998). Colonization and naturalization of non-native plant species, such as salt cedar, affect native ecosystems by altering historical fire regimes. The deciduous nature of salt cedar, combined with the suppression of periodic flooding needed in river floodplain ecosystems to decrease the forest floor liter, has resulted in increased accumulation of fuels, rendering the riparian communities highly susceptibility to wildfires (Ellis et al. 1998). The frequency of fire in riparian ecosystems has been reduced to fire return intervals as short as five to 15 years in some cases. The short-interval fires can create monotypic stands of salt cedar in the riparian ecosystems. Salt cedar sprouts prolifically after a fire, but native riparian vegetation including cottonwood is not well adapted to severe fire (Ohmart and Anderson 1982; Ellis et al. 1998). The increasing frequency of fires in the riparian ecosystems can further change the vegetation composition and structure and may also have detrimental effects on riparian-obligate species.

Wildland fires of special concern are those with the potential to burn uncharacteristically (in intensity, severity, and/or extent), because these fires could have long-term adverse impacts on ecosystem components and processes (e.g., biodiversity, soil productivity, and hydrologic processes).

3.6.3 FIRE REGIMES AND RISK CONDITIONS

Fire regime refers to the nature of fires occurring over long periods of time and the prominent immediate effects of fire that generally characterize an ecosystem (Brown 2000). Fire regimes can be defined through the attributes of frequency, seasonality, size/spatial extent, rotation (or fire cycle), predictability (or variation in fire frequency), and magnitude (both intensity and severity) (Agee 1993; Morgan el al. 2001). Fire regimes can be subdivided into components that vary in time, space, and magnitude. However, fire regime descriptions are often limited to the frequency and severity of wildfires.

Fire regimes vary considerably by both vegetation types and landscape characteristics. Map 3-13 and Table 3-10 display the historical/natural fire regimes, based on fire frequency and severity, for the vegetated lands in the planning area. The vegetated lands in the planning area are classified as Fire Regimes III (fire frequency of 35 to over 100 years with mixed severity) and IV (fire frequency of 35 to over 100 years and high severity). These fire regime groups are generalized and address only the primary type of fire that occurs in each regime.

Current condition classes are a function of the degree of departure from historical fire regimes resulting in alterations of key ecosystem components such as species composition, structural stage, stand age, and canopy closure. One or more of the following activities may have caused this departure: fire exclusion or suppression, vegetation management, grazing, introduction and establishment of exotic plant species, insects or disease (introduced or native), or other past management activities (Hann and Bunnell 2001).

Table 3-10
Historical Fire Regimes Based on Fire Frequency and Severity

Fire Regime Group	Fire Frequency and Severity[1]	All Lands within the Planning Area (acres)	BLM Lands within the Planning Area (acres)
I	0-35 years; Low (surface fire most common) severity	--	--
II	0-35 years; High (stand replacement) severity	--	--
III	35-100+ years; Mixed severity	1,844,600	575,800[2]
IV	35-100+ years; High (stand replacement) severity	228,100	31,400[2]
V	> 200 years; High (stand replacement) severity	--	--

Source: Schmidt et al. 2002; http://www.fs.fed.us/fire/fuelman
[1]Fire frequency refers to fire return interval. Fire severity refers to fire effects to dominant above ground vegetation (less than or greater than 75% dominant overstory replacement).
[2]Acres represent vegetated lands only.

Map 3-14 and Table 3-11 display the current fire regime condition classes, based on degree of departures from historical/natural fire regimes, for the vegetated lands in the planning area. The vegetated lands in the planning area are mostly classified as Condition Class 1 (fire regimes within the historical range), with a minor portion classified as Condition Class 3 (significantly altered fire regimes).

Landscape-level fire and fuels management strategies, including wildland fire suppression, vegetation and fuel treatments, wildland fire use, and prescribed fires are used in the planning area to reduce the fire hazard and risk in the wildland and WUI areas. In general, actions related to wildland fire and fuels management should reduce the amount of vegetated lands characterized as Fire Regime Condition Classes 2 and 3. Class 3 occurs within the planning area. Fuel hazard reduction may include prescribed fire, mechanical, biological, and chemical treatments or a combination thereof. The fuel treatment strategies reduce both existing fuel levels and risks of large damaging wildfires.

Landscape-level fire and fuels management strategies are designed to limit wildland fire extent, modify fire behavior, protect values at risk, and improve terrestrial ecosystem conditions. Fire management and fuel treatment strategies allow land/resource managers to control fires and set priorities that protect fire fighters, public life and property, and natural resources.

Table 3-11
Current Condition Classes Based on Departures from Historical Fire Regimes

Condition Class (CC)	Description	All Lands within Planning Area (acres)	BLM Lands within Planning Area (acres)
CC1	Fire regimes are within a historical range and the risk of losing key ecosystem components is low. Vegetation attributes (species composition and structure) are intact and functioning within a historical range.	1,716,600	565,400[1]
CC2	Fire regimes have been moderately altered from their historical range. The risk of losing key ecosystem components is moderate. Fire frequencies have departed from historical frequencies by one or more return intervals (either increased or decreased). This results in moderate changes to one or more of the following: fire size, intensity and severity, and landscape patterns. Vegetation attributes have been moderately altered from their historical range.	--	--
CC3	Fire regimes have been significantly altered from their historical range. The risk of losing key ecosystem components is high. Fire frequencies have departed from historical frequencies by multiple return intervals. This results in dramatic changes to one or more of the following: fire size, intensity and severity, and landscape patterns. Vegetation attributes have been significantly altered from their historical range.	3,000	200[1]

Source: Hann and Bunnell 2001; http://www.fs.fed.us/fire/fuelman
[1]Acres represent vegetated lands only.

3.6.4 FIRE MANAGEMENT UNITS AND WILDFIRE HISTORY

The Yuma/Lake Havasu Zone is subdivided into eight Fire Management Units—Bill Williams River, Gila River, High Elevation Sonoran Desert, Lower Colorado River (North), Lower Colorado River (South), Sonoran Desert Wilderness (North), Sonoran Desert Wilderness (South), and Sonoran Desert Scrub. Of these eight Fire Management Units, six overlap the planning area. Map 3-12 displays the spatial extent of the Fire Management Units, and Table 3-12 provides descriptions of the geographical locations and areas.

Wildfire history is closely related to vegetation and climatic patterns in terrestrial ecosystems. Patterns of fire frequency, season, size, severity, and uniformity are functions of existing vegetation conditions, weather, elevation, physiographic features, ignition sources, and fire suppression activities.

Table 3-12
Fire Management Units in Yuma/Lake Havasu Zone Overlapping Planning Area

Fire Management Area	Location	All Lands within Planning Area (acres)	BLM Lands within Planning Area (acres)
High Elevation Sonoran Desert	High Elevation Sonoran Desert FMU consists of two mountain ranges within the Lake Havasu Field Office boundaries. It represents all of the uplands in the Fire Zone with an elevation of 3,500 feet or more and includes the Harcuvar Mountains Wilderness and the Mohave Mountains.	23,400	--
Lower Colorado River (North)	Lower Colorado River (North) FMU is located along the Colorado River from Davis Dam south to I-10.	103,500	4,000
Lower Colorado River (South)	Lower Colorado River (South) FMU is located along the Colorado River from I-10 south to the Southerly International Boundary at San Luis, Arizona.	266,600	45,000
Gila River	Gila River FMU is located east of Yuma and starts at the north end of the Gila Mountains and follows the Gila River riparian area east approximately 80 miles to the YFO boundary.	159,300	33,600
Sonoran Desert Wilderness	Sonoran Desert Wilderness (North) FMU consists of BLM-administered wildernesses north of I-10 in Arizona, excluding the Harcuvar Mountains Wilderness. Sonoran Desert Wilderness (South) FMU consists of BLM-administered wildernesses south of I-10 in Arizona.	1,120,800	167,800
Sonoran Desert Scrub	Sonoran Desert Scrub FMU includes the entire upland Sonoran Desert that is not included elsewhere. This FMU can be accessed from Interstates 8, 10, and 40.	3,353,400	1,067,600

Source: BLM *GIS Data; Yuma/Lake Havasu Fire Management Plan* (USDOI BLM 2004d)
FMU = Fire Management Unit

Between 1984 and 2003, approximately 98 percent of fires in the Yuma/Lake Havasu Zone were caused by humans and generally occurred between the months of February and October (Map 3-15). Fires caused by humans were usually associated with main travel corridors and the rivers.

The number of fires varies from year to year in the planning area. The twenty-year annual average is approximately 36 fires, burning an average of 3,022 acres per year. Multiple fire days consisting of two or more fires per day have occurred 34 times in the past 20 years. Of the 34 events, six consisted of days with three fires.

Fires were largely confined to the Lower Colorado River (North), Lower Colorado River (South), and Gila River Fire Management Units, where the fires were almost entirely caused by humans. Fire occurrence is most common in the Lower Colorado River (South) Fire Management Unit. Based on historic data, the probability of large wildfires is also highest in this Fire Management Unit because of public use, fuel continuity, and reduced access. A Federal national team (Type I Incident Management Team) has been mobilized once between 1984 and 2003 for fires in the Lower Colorado River (South) Fire Management Unit.

While the majority of the area experiences fires ranging from less than an acre to 99 acres (Class A, B, and C fires), the Lower Colorado River (South) Fire Management Unit has a history of large fire activity, with a total of eight fires ranging from 240 to 4,100 acres (Class E and F fires).

3.7 CULTURAL RESOURCES

Lands managed by the YFO have a rich and diverse cultural heritage. The ancestors of today's Native Americans lived in the region for thousands of years. The Spanish first explored the planning area in 1540. American trappers began filtering into the area in the early 1800s and the U.S. took over the territory in 1848 as a result of the Mexican-American War and the Treaty of Guadalupe Hidalgo. Today's southern Arizona and New Mexico south of the Gila River were acquired in the Gadsden Purchase of 1853. Soon Arizona had a growing pioneer population and an economy based on ranching and mining. All of these various visitors and residents left an archaeological record of their lives and their time spent in the planning area. These traces of past activities require a wide variety of approaches and methods for their effective management. These include cultural site protection, surveys for identification and evaluation, scientific research, ethnographic and oral history research, interpretive development, and public education.

3.7.1 CULTURAL SEQUENCE

A. MALPAIS (PRIOR TO 12,000 BP)

Defined primarily by Julian Hayden (1987), the contemporary use of the term refers to assemblages of heavily weathered and varnished choppers, scrapers, and other core-based tools. Projectile points are lacking. These materials are typically found on Pleistocene-age desert pavements, sometimes associated with cleared circles or trails. Dating has been attempted on the basis of weathering and desert varnish formation, but obtaining radiocarbon or other absolute dates remains elusive. The existence and dating of the Malpais Complex remains controversial.

B. PALEOAMERICAN PERIOD (13,000 TO 7,000 BP)

Also known as the Paleoindian Period, this is when people first entered North America according to most archaeologists. This period is generally accepted to have occurred from about 13,000 BP to 7,000 BP, although there is some evidence of earlier occupations (e.g., Moratto 1984:71). This was a time of greater effective moisture than present.

1. The Fluted Point Tradition

The Fluted Point Tradition, first documented in Clovis, New Mexico, is primarily a southern Great Plains, big game hunting tradition. However, fluted projectile points have been found all over North America. In places other than the Great Plains, the economy seems more generalized. The typical Clovis type projectile point is a finely flaked, concave base spear point with a flute (a long thinning flake) running from base toward the tip. The assemblage also includes flaked-stone crescents, gravers, perforators, scrapers, and choppers (Justice 2002).

2. The San Dieguito Complex and Lake Mojave Complex

The San Dieguito Complex and the very closely related Lake Mojave Complex are primarily found in the deserts of Arizona, Nevada, Sonora, and the Californias (Rogers et al. 1966:24-25). Defined by Malcolm Rogers in the 1920s, the San Dieguito Complex represents primarily a big game hunting-based economy with some small game hunting and gathering of plant foods. The San Dieguito Complex, as currently known, contains only leaf-shaped projectile points, while the Lake Mojave Complex contains the long, tapered stem Lake Mojave type point and the short stem Silver Lake type point and an occasional Clovis fluted point. The assemblage also contains heavy percussion-shaped domed and keeled choppers, planes, and scrapers and finely flaked spokeshaves and crescents. The San Dieguito and Lake Mojave sites have limited numbers of slab metates for seed processing (Warren 1987).

C. THE ARCHAIC PERIOD

1. Early Archaic (approximately 7,000 to 4,000 BP)

The early Holocene was a time of global warming when Pleistocene lakes dried up, woodlands retreated upslope, and big game became relatively scarce. In response, native people gradually shifted their economic focus from hunting big game to gathering plant products, especially hard seeds. In the early Archaic, one finds the Pinto Complex in the nearby Mojave Desert and north in the Great Basin; few Early Archaic sites have been noted in western Arizona and none are known from the Salton Sink. This complex is characterized by thin slab millingstones or metates, large, crude Pinto series projectile points, crude choppers, scrapers, scraper-planes, and knives (Warren 1987; Warren and Crabtree 1986).

2. Late Archaic (approximately 4,000 to 1,500 BP)

During the Late Archaic Period, the Amargosa or Gypsum Complex developed. While the Gypsum Complex was defined for the Mojave Desert and the Great Basin, Rogers recorded numerous Late Archaic sites in western Arizona, but did not note any from the California side of the Colorado Desert (Rogers et al. 1966; Warren 1984:403-404). The Gypsum Complex is characterized by fine, pressure-flaked Elko (or San Pedro in eastern and central Arizona), Humboldt, and Gypsum-type projectile points, leaf-shaped points, rectangular-based knives, flaked scrapers, T-shaped drills, and occasional large scraper-planes, choppers, and hammerstones. Manos and basin metates became relatively common and the mortar and pestle were introduced late in this period (Warren and Crabtree 1986).

D. LATE PREHISTORIC PERIOD

Around the start of this period, ceramics begin to appear in the archaeological record along the lower Colorado River, as does the bow and arrow.

1. The Patayan

Patayan is a lower Colorado Basin culture that is also known as the Ancestral Yuman or Hakataya. The Patayan Complex is divided into three phases. These phases are primarily defined by changes in ceramic types and forms.

- **Patayan I (AD 500 to 1000):** The Patayan I phase is characterized by small mobile groups living in dispersed seasonal settlements, primarily along the Colorado River, but also at some desert springs. The subsistence economy was dominated by gathering plant foods, primarily mesquite pods, fishing, and hunting small game. Paddle and anvil pottery and small projectile points, such as the Desert Side-notched and Cottonwood Triangular types, were introduced. Disposal of the dead changed from inhumation to cremation.

- **Patayan II (AD 1000 to 1500):** The Patayan II phase is marked by the existence of Lake Cahuilla. This was a huge freshwater lake that formed from time to time when the Colorado River flowed into the Salton Sink instead of the Gulf of California. Lake Cahuilla was approximately 100 miles long and 35 miles wide. It is thought to have had numerous filling and drying cycles over the last million years or so since the mid-Pleistocene. Late Prehistoric sites are very abundant along the Lake Cahuilla high stand shoreline and recessional shorelines. During Patayan II, a major subsistence shift took place from fishing and gathering along the Lake Cahuilla shoreline to floodplain horticulture in the Colorado and lower Gila River floodplains. Maize, tepary beans, pumpkins, gourds, and grasses were cultivated, but the pods of the native mesquite tree were evidently the most important food (Castetter and Bell 1951). People of this period typically lived in substantial houses on hills and terraces away from the floodplain during late winter, spring and early summer when the Colorado and Gila rivers would flood. After the floodplain dried out sufficiently, the people would move back to the floodplain and plant their crops in the moist mud. A few months after the harvest, they would move to an upland location again to avoid the spring flood (Castetter and Bell 1951).

- **Patayan III (approximately AD 1500 to the 1900s):** The Patayan III phase begins after the final desiccation of Lake Cahuilla between approximately AD 1500 and 1600. This phase is, therefore, in the Historic Period for the most part. It is marked by cultural continuity with Patayan II on the one hand, and with the ethnographically attested tribes living in the region in modern times on the other hand (Castetter and Bell 1951). With the drying up of Lake Cahuilla, people living along the east bank probably moved back to the Colorado River, while those on the west bank are believed to have moved to the west (e.g., Rogers 1945).

2. The Hohokam

The Hohokam lived primarily in the Gila-Salt basin near Phoenix, Arizona, but there were Hohokam settlements north to the Flagstaff area, south to the Tucson area and west as far as Gila Bend. Cultural resources associated with the Hohokam can be found at the very eastern portion of the planning area, around the Maricopa County line. The Hohokam were agriculturalists who built an extensive system of canals to aid in the cultivation of cotton, tobacco, agave, maize, beans, squash, gourds and grasses. The Hohokam cultural sequence has been divided into four periods (Doyel 1981; Gumerman and Haury 1979).

- **The Pioneer Period (AD 200-775):** Villages were small and located primarily along the middle of the Gila River. Here they built semi-rectangular, semi-subterranean houses. They dug wells and built extensive canals to support agriculture based on maize, cotton, beans, squash, and pig weed. Stone manos and metates were used for seed grinding. Pottery was undecorated brown ware. Clay human and animal figures and incense burners were also

made. The dead were cremated and placed in ceramic urns (Doyel 1981; Gumerman and Haury 1979).

- **The Colonial Period (AD 775-975):** During this period, village size and Mexican influence increased. In larger homes, there was evidence of social stratification and grave goods were more ornate. Ball courts reminiscent of those in Mexico were established in larger villages. Iron-stained slip was introduced, resulting in a red-on-buff ware pottery.

- **The Sedentary Period (AD 975-1150):** The Sedentary Period saw an increase in population that resulted in larger irrigation canals and structures, an expansion of cultivated land, communal ovens for cooking bread and meat, and greater communal activity. Houses became post-reinforced pit houses and villages were built around common courtyards. More cotton textiles and jewelry made from shell, stone, and bone were produced. Carved stone figures and acid etching were introduced and craftsmanship improved. An elite class emerged, suggesting increased social stratification. Platform mounds similar to those in central Mexico appeared (Doyel 1981; Gumerman and Haury 1979).

- **The Classic Period (AD 1150-1400/1450):** This period is separated into two cultural phases. The Soho Phase (AD 1150-1300) saw a decline in population, the number of canals and rancherias, and trade with Mexico. An outside threat resulted in more centralized villages with dense structures and perimeter walls. Great House structures, made of stone or adobe, had up to four stories. These were probably associated with the managerial or religious class. Trade with Pueblo peoples to the north and east increased (Doyel 1981; Gumerman and Haury 1979). During the Civano Phase (AD 1300-1400/1450), many villages were abandoned. Several years of major river flooding followed by long periods of low water resulted in lack of dependable irrigation water and the ability to produce food for large numbers of people. By AD 1355, the central authority had collapsed and large villages and the centralized irrigation systems were abandoned. Small groups moved to the desert or areas with more dependable water sources. Some Hohokam may have reorganized into smaller villages and stayed along the Gila River. Some scholars suggest the remnant Hohokam may have been the Piman-speaking people that the Spanish encountered there at the end of the seventeenth century (e.g., Ezell 1963). Others suggest that the Pima-speakers moved into the area after the Hohokam collapse (Di Peso 1956). Pima oral tradition suggests they moved into the area from the east and drove out the remnant Hohokam, who fled to the west (Doyel 1981).

E. HISTORIC

In 1540, Hernando de Alarcón and his crew rowed up the Colorado River to the Yuma area. Melchior Diaz, as part of the Coronado Expedition, visited the area on horseback. Oñate, the governor of New Mexico, explored Yuma and environs in 1605 and the famous Italian Jesuit, Eusebio Francisco Kino, visited in 1701. Franciscan missionaries, Francisco Garces Juan Diaz and others established two small missions and settlements in the Yuma vicinity in 1779. In 1781, there was a small mining boom in the Spanish settlement of Potholes, north of the Yuma area; however, the Spanish were ultimately driven from the Yuma area by the successful Quechan Revolt of 1782. Few Spanish, Mexican and Americans used the Yuma Crossing until the Mexican-American War of 1846-1848 (Forbes 1965).

The California Gold Rush of 1849 brought thousands of emigrants to the Yuma Crossing, and Fort Yuma was established in 1852 despite stiff armed resistance by the Quechan (Forbes 1965; Woznicki 1968). From the 1850s until 1877, steamboats plied the Colorado River transporting passengers and goods to mines, ranches and military outposts all along the river from Port Isabel on the Gulf of California up to Hardyville, now known as Bullhead City. In 1877, the Southern Pacific Railroad bridged the river, ending riverboat transportation. Yuma remained a transportation hub, however, as extensive railway yards and maintenance operations were developed (Woznicki 1968). Agriculture, based on small scale irrigation systems, was an important part of the economy in the late 19th century. After the construction of the Laguna Dam in 1909 and the associated siphon and delivery canals in 1912, agriculture expanded dramatically (Woznicki 1968).

MCAS-Yuma began with a primitive airfield in 1928. In World War II, it became one of the busiest flying schools in the country. In 1943 through May 1944, the Desert Training Center, later renamed the California – Arizona Maneuver Area, was established. Here General George S. Patton trained soldiers in World War II for desert campaigns in North Africa. This training facility then became the Yuma Proving Ground (YPG), which continues to test various Army gear and equipment.

3.7.2 CULTURAL AFFILIATION

Yuman (Cocopah, CRIT, Fort Mojave, Hualapai, Quechan, Yavapai), Maricopa (Ak-Chin, Gila River, and Salt River Pima-Maricopa), Southern Paiute (Chemehuevi) and Hopi have ties to the planning area. The lower Colorado River tribes typically practiced floodplain horticulture and grew the classic southwestern crops of corn, beans, squash, melons, pumpkins, and gourds. A major staple of their diet was the pods of the mesquite tree. Their primary source of protein was fish and small game. Most of the tribes followed a bi-polar settlement system. In late summer and fall they lived in the floodplain near where they planted their crops; in late winter, spring, and early summer they lived in more substantial houses in upland settings to avoid the seasonal floods (Castetter and Bell 1951). The Tohono O'odham and Hia C'ed O'odham also have important ties to the planning area, with the Tohono O'odham traditionally occupying the arid desert south of the Gila River and the Hia C'ed O'odham occupying the lands from the Gulf of California to the Tinajas Altas Mountains.

3.7.3 ARCHAEOLOGICAL INVENTORY AND IDENTIFIED SITES

YFO follows the guidance provided by the BLM – SHPO Cultural Resources Data Sharing Partnership for management of its cultural resources data. This partnership developed a central cultural resources database for each state with BLM-administered lands. YFO enters information on cultural sites and surveys for the entire planning area into AZSITE, Arizona's statewide database for cultural resource information that is administered by the Arizona SHPO and the Arizona State Museum. In addition, YFO contributes data to the California Historical Resources Information System by sharing information on its cultural sites and surveys that are located in California with the California Office of Historic Preservation Information Centers for Imperial

and Riverside Counties, which are hosted at the Imperial Valley College Desert Museum and the University of California at Riverside, respectively.

As of June 2006, the statewide AZSITE database lists about 700 previous cultural resource surveys in the planning area covering approximately 215,000 acres. These areas have been inventoried for cultural resources at either a Class II (sample survey) or a Class III (100 percent-coverage survey) level. This represents about 16 percent of the planning area's surface acreage. Locations that have undergone inventory have been dictated primarily by proposed construction projects, with the inventory conducted for compliance with Section 106 of the NHPA. However, some inventory has been conducted in response to Section 110 of that same law, which requires Federal agencies to identify, evaluate, and nominate to the NRHP historic properties under their jurisdiction.

In total, over 4,300 archaeological sites have been documented in AZSITE for the planning area. Given the relatively low level of survey coverage in the planning area, one could reasonably expect that several thousand prehistoric and historic sites remain undiscovered on BLM-administered lands managed by the YFO.

Prehistoric site types recorded include habitation sites, temporary camps, petroglyphs and pictographs, intaglios and geoglyphs, trails, hearths, and artifact scatters with chipped stone and ceramics. Prehistoric sites are distributed over all ecological zones within the region. Miles of trails and numerous cleared areas, rock rings, and hearths scattered across the desert lowlands attest to a constant presence and movement across the desert landscape. Upland zones provided more variety in biotic resources and were a great resource for raw lithic materials. These upland and lowland sites are components of a larger interconnected system established prehistorically for the exploitation of the area's resources.

Historic sites include railroads, roads, trails, irrigation facilities, mining sites, telegraph lines, homesteads, and cemeteries. Some historic trails in the area include the Anza Trail, Butterfield Overland Mail Route, Mormon Battalion Trail, and Gila Trail. Economic enterprises such as mining and agriculture populated the region, and southern Arizona became the focus of a transportation route to California and the coast. Mail routes and the railroad continued the populating of the region. Thus, the historic sites tend to occupy transportation corridors along river valleys, between mountain ranges, and over mountain passes. Historic sites are often located at or near the same locations as prehistoric sites, indicating similar needs for access to water and other resources.

Determining the age of prehistoric sites is particularly difficult in this region of the southwest. Most sites located along the terraces above the river floodplains are surface manifestations with little or no stratigraphic depth and few diagnostic artifacts, so that the sites cannot be dated to a specific prehistoric period. Depending on the site, a combination of the geomorphology at these locations and the length of occupation result in a lack of subsurface archaeological materials. Long-term habitation sites would provide the best opportunity for site dating, because they would contain substantial subsurface cultural deposits. However, these sites are likely to be located on the river floodplains and have been either severely disturbed by water flows, destroyed by agricultural activities, or deeply buried beneath floodplain deposits. Thus, these site types are extremely rare and immensely valuable.

3.7.4 PLACES OF TRADITIONAL CULTURAL IMPORTANCE

Places of traditional cultural importance provide a sense of spiritual and social continuity to Native Americans and other cultural groups. Some places may have religious significance. Others may be used for the observance of traditional ceremonial activities, or for hunting or gathering plants for food or medicinal use. Because they are not usually recognizable to an outsider through archeological or historical investigations, the existence and locations of traditional cultural importance may often only be identified through consultation with members of the groups who ascribe value to those places.

YFO is consulting specifically with Native American tribes to provide an opportunity for tribes to identify any places of traditional religious or cultural importance relevant to the proposed RMP alternatives. Many Native American belief systems require that the identity and location of traditional religious and cultural properties not be divulged. BLM has a commitment to keep specific information regarding such resources confidential to the fullest extent allowed by law.

3.7.5 NATIONAL REGISTER OF HISTORIC PLACES

In general, sites are considered significant if they are associated with an important prehistoric or historic event, person, architectural style or engineering style, or have the potential to yield important information about prehistory or history. Currently, approximately 25 percent of known sites in the planning area are considered or determined eligible for listing on the NRHP, 12 percent are considered or determined not eligible for the NRHP, and the remaining sites have not been formally evaluated. Sites, districts, and thematic resources listed on the NRHP for the planning area include:

- Blythe Intaglios Complex, listed on August 22, 1975;
- Ripley Intaglios Complex, listed on November 20, 1975;
- Eagletails Petroglyph Site, listed on September 28, 1988;
- Sears Point Archaeological District, listed on October 16, 1985;
- Martinez Lake Site, listed on September 10, 1987; and
- Earth Figures of California–Arizona Colorado River Basin Thematic Resource.

The Sears Point Archaeological District is part of the existing Gila River Cultural Area ACEC, and the Blythe Intaglios Complex is within the Big Marias ACEC.

3.7.6 EVALUATION OF CULTURAL RESOURCES

BLM evaluates cultural resources according to their current and potential uses. Cultural resources can be managed under one or more of the following six use categories: Scientific Use, Public Use, Traditional Use, Conservation for Future Use, Experimental Use, and Discharged from Management. Definitions for these categories are found in Section 2.15.3 Allocation to Use Categories.

All cultural sites that are known and projected to occur in the planning area are managed under one or more of the six use categories, following the guidelines described in BLM *Manual* 8110.4. The BLM determines suitable uses for cultural resources based on a site's characteristics, condition, setting, location, accessibility, perceived values and potential uses. Management categories are used to determine appropriate mitigation and treatment options for cultural sites that are presently known and for those discovered in the future. The BLM reevaluates and revises management categories, as appropriate, when circumstances change or new data become available. See Section 2.15 in Chapter 2 for a more detailed description of how cultural sites within the planning area would be managed under the six use categories.

Cultural properties currently managed for Public Use in the planning area are the Blythe Intaglios Complex in the Big Marias ACEC, the Fisherman Intaglio, the Sears Point ACEC interpretive area, and historic trails such as the Anza Trail, the Butterfield Overland Mail Route, the Gila Trail, and the Mormon Battalion Trail.

3.7.7 AREAS OF HIGH CULTURAL RESOURCE SENSITIVITY

A. COLORADO RIVER CORRIDOR

The lower Colorado River corridor stands in stark contrast to the surrounding dry desert. Prehistorically along the river, one would find tall cottonwood and willow gallery woodlands (Minckley and Brown 1994). In upper floodplain areas were extensive mesquite bosques. The pods of the mesquite were a major dietary staple during the Late Prehistoric Period and the Historic Period (Castetter and Bell 1951). Indigenous peoples planted their crops in the river's floodplain. The river also provided fish, the major source of protein, as well as habitat to rabbits and other small game, which also contributed to the diet (Forde 1931). The adjacent desert provided small game and plant foods, as well as lithic resources and ceremonial sites.

The tribes who lived along the river were inveterate visitor travelers. They were in more or less constant contact with other river tribes for visiting and trading by means of an extensive trail network along both banks. In addition to their role as transportation routes, the trails have a great deal of spiritual significance. Travel along the lower Colorado River corridor figures prominently in their origin stories, oral traditions, and song cycles (Kroeber 1925). Also in the adjacent desert pavement terraces are many intaglio features and other important geoglyphs. These designs in the desert pavement are highly significant and irreplaceable resources that have a great deal of spiritual significance for the river tribes. Very few archaeological deposits have been discovered within the river floodplain, presumably because the river either scoured away or deeply buried archaeological deposits during flooding episodes. However, the adjacent desert is archaeologically very rich (e.g., Altschul and Ezzo 1994; Cleland et al. 2003). The Blythe Intaglios NRHP site, Martinez Lake NRHP site, and Ripley Intaglios NRHP site are located along this corridor, and the Big Marias ACEC was designated to help preserve and manage sensitive cultural resources along the river.

B. GILA RIVER CORRIDOR

Like the lower Colorado River corridor (see above), the Gila River also functioned as a source of sustenance for inhabitants and travelers in prehistoric and historic times. Indigenous peoples along the lower Gila River had very similar languages, cultures, and subsistence strategies to the lower Colorado River tribes. In the planning area along the lower Gila River corridor, one also finds geoglyphs and intaglios on delicate desert pavement formations, and an extensive system of prehistoric trails, extensive rock art sites, and other important cultural features. These sites along the Gila River have substantial spiritual significance to contemporary Native Americans of the region. This river corridor also has importance as a travel route in historic times, with the Anza Trail, Butterfield Overland Mail Route, Mormon Battalion Trail, and Gila Trail all following the course of the Gila River floodplain. In order to effectively manage the important cultural resources that are situated along the Gila River, the BLM designated the Sears Point ACEC, which contains the Sears Point NRHP archaeological district and a portion of the Anza Trail route.

C. SPRINGS, TINAJAS, AND WASHES

Ethnographic and archaeological studies suggest that in desert areas, access to water was a prime consideration in prehistoric and historic settlement location decisions and travel routes (e.g., Taylor 1961). Most undisturbed water sources in the planning area, including springs, tinajas, and washes, have some type of prehistoric and/or historic sites in association. These include trails and associated features, petroglyph and pictograph sites, and habitation sites. The Eagletails Petroglyph NRHP site (inside the Eagletails Wilderness Area), the Dripping Springs archaeological site, and the Tyson Wash petroglyphs are all examples of important archaeological sites that are situated around isolated water features on the desert landscape.

3.8 PALEONTOLOGICAL RESOURCES

Paleontologic resources are the fossilized evidence of past life found in the geologic record. Despite the tremendous volume of sedimentary rock deposits preserved worldwide and the enormous number of organisms that have lived through time, preservation of plant or animal remains as fossils is an extremely rare occurrence.

Because of their rarity and because of the scientific information they can provide, fossils are highly significant records of ancient life. They can provide information about the interrelationships of living organisms, their ancestry, development, and change through time, and their former distribution. Progressive morphologic changes observed in fossil lineages may provide critical information on the evolutionary process itself—that is, the ways in which new species arise and adapt to changing environmental circumstances. Fossils can also serve as important guides to the ages of the rocks and sediments in which they are contained and may prove useful in determining the temporal relationships of rock deposits from one area to another and the timing of geologic events. Time scales established by fossils provide chronologic frameworks for geologic studies of all kinds (Table 3-13).

Within the planning area, several rock units have potential to contain significant paleontologic resources. These rock units are present at the surface as well as in the subsurface and were originally deposited as fluvial (river or stream) and/or lacustrine (lake) sediments, in most cases over broad geographic areas. Sediments deposited under these conditions are generally favorable for the preservation of fossil resources.

Table 3-13
Geologic Time Scale

Eon	Era	Period		Epoch	Age[1]
Phanerozoic	Cenozoic	Quaternary		Holocene	0.01 – present
				Pleistocene	0.01 – 1.6
		Tertiary	Neogene	Pliocene	1.6 – 5.3
				Miocene	5.3 – 23.7
			Paleogene	Oligocene	23.7 – 36.6
				Eocene	36.6 – 57.8
				Paleocene	57.8 – 66.4
	Mesozoic	Cretaceous			66.4 – 144
		Jurassic			144 – 208
		Triassic			208 – 245
	Paleozoic	Permian			245 – 286
		Carboniferous	Pennsylvanian		286 – 320
			Mississippian		320 – 360
		Devonian			360 – 408
		Silurian			408 – 438
		Ordovician			438 – 505
		Cambrian			505 – 570
Precambrian	Proterozoic				570 – 2500
	Archean				2500 – 3800
	Hadean				3800 – 4550

Source: Palmer 1983;
[1]Age in millions of years before the present

3.8.1 GEOLOGY IN THE PLANNING AREA

The following composite list of geologic formations having potential to contain paleontologic resources is presented in order by geologic age, from oldest to youngest. Similar rock units located in other areas of the southwestern U.S. have been demonstrated to have high paleontologic sensitivity (Tedford et al. 2004; Bell et al. 2004). Geographic locations where these rock units are present at the surface are mentioned, but it is possible that these rock units also have limited, smaller-scale exposures elsewhere. Formational abbreviations for each unit are presented in parentheses below to facilitate comparison of these data with Map 3-16.

A. PALEOZOIC SEDIMENTARY ROCKS (Pz)

Sedimentary rocks deposited during the Paleozoic Era crop out primarily in the New Water Mountains, the Dome Rock Mountains, the Plomosa Mountains, and the northern Gila Mountains. If present, scientifically significant fossils from these rocks would include marine invertebrates and vertebrates, depending upon the age of the strata.

B. TRIASSIC AND JURASSIC SEDIMENTARY AND VOLCANIC ROCKS (JTR)

Sedimentary rocks deposited during the Triassic and Jurassic Periods of the Mesozoic Era, approximately 240 million years ago to 144 million years ago, crop out primarily in the Dome Rock Mountains. Mapping by Richards et al. (2000) does not distinguish sedimentary rocks from volcanic rocks in these units; however, volcanic rocks do not typically contain fossils. Some Triassic and Jurassic rocks in the southwestern U.S. have yielded fossil remains of animals (including bones, teeth, and fossilized trackways) and plants from the beginning of the Mesozoic Era—the "Age of Dinosaurs."

C. JURASSIC SEDIMENTARY AND VOLCANIC ROCKS (Jsv)

Sedimentary rocks deposited during the Jurassic Period of the Mesozoic Era crop out primarily in the Castle Dome Mountains, the Kofa Mountains, the Little Horn Mountains, and the Tank Mountains. Mapping by Richards et al. (2000) does not distinguish Jurassic sedimentary rocks from Jurassic volcanic rocks; however, the volcanics do not have potential to contain fossil resources. Bones, teeth, and trackways of extinct animals have been found in some Jurassic rocks in the southwestern U.S.

D. UPPER JURASSIC TO CRETACEOUS SEDIMENTARY ROCKS (KJs)

Sedimentary rocks deposited during the Late Jurassic Period through the Cretaceous Period, from approximately 160 million years ago to around 65 million years ago, crop out primarily in the Dome Rock Mountains and the Plomosa Mountains. Fossil remains of plants and animals from the end of the Mesozoic Era have been reported in similar rock units in the southwestern U.S.

E. OLIGOCENE TO MIDDLE MIOCENE SEDIMENTARY ROCKS (Tsm)

Sediments and sedimentary rocks deposited during the Oligocene Epoch through to the middle Miocene Epoch, between approximately 34 million years ago and 11 million years ago, occur primarily in the Dome Rock Mountains, the Gila Bend Mountains, the Laguna Mountains, the Muggins Mountains, the Plomosa Mountains, and the northern Mohawk Mountains. Vertebrate fossils from these rocks can include early, primitive ancestors of horses and camels, as well as extinct forms such as oreodonts, titanotheres, and amphicyonids ("bear dogs"), as well as abundant small mammals.

F. MIDDLE MIOCENE TO PLIOCENE SEDIMENTARY ROCKS (Tsy)

Sediments and sedimentary rocks deposited during the middle Miocene Epoch through to the later Pliocene Epoch, between approximately 16 million years ago and two million years ago,

occur primarily in the Palomas Plain and King Valley, as well as in the Dome Rock Mountains, the Eagletail Mountains, the Gila Mountains, the Clanton Hills, and portions of the Kofa Mountains. Vertebrate fossils from these rock units can include three-toed and later one-toed horses, numerous diverse species of camels, and gomphotheres (primitive elephant ancestors), as well as early saber-toothed cats and bone-crushing dogs, as well as abundant small mammals.

G. LATE MIOCENE TO EARLY PLEISTOCENE SEDIMENTARY ROCKS (QTs)

Sediments deposited during the Late Miocene Epoch through Early Pliocene Epoch, from approximately 11 million years ago to 750,000 years ago, occur in the Cibola Plain.

H. LATE PLIOCENE TO EARLY PLEISTOCENE SEDIMENTARY ROCKS (Qo)

Sediments and sedimentary rocks deposited during the late Pliocene Epoch through the early part of the Pleistocene Epoch, between approximately three million years ago and 750,000 years ago, are found along the flanks of the junction of the Kofa Mountains and the Little Horn Mountains, along the flanks of the southwestern Eagletail Mountains, in the Cibola Valley, in King Valley, in the Castle Dome Plain, and in the New Water Mountains. Vertebrate fossils from sediments deposited during this time can include zebras, giant camels and llamas, mastodons, early mammoths, sabre-toothed cats, dire wolves, and abundant small mammals.

I. EARLY TO LATE PLEISTOCENE SEDIMENTARY ROCKS (Qm)

Sediments and sedimentary rocks deposited during the middle to late Pleistocene Epoch, from approximately 750,000 years ago to about 10,000 years ago, occur in the Clanton Hills, on the flanks of the Castle Dome Mountains, in the Ranegras Plain, along the flanks of the Bear Hills, in the New Water Mountains, and in the Little Horn Mountains. Vertebrate fossils from sediments deposited during this time can include large and small horses, giant camels and llamas, mastodons, mammoths, sabre-toothed cats, short-faced bears, and giant bison, as well as abundant small mammals.

J. UNDIVIDED QUATERNARY SEDIMENTS (Q)

Undivided sediments and sedimentary rocks deposited during the Quaternary Period, between approximately 1.8 million years ago and the present, are located primarily in the flat-lying Palomas Plain, the Ranegras Plain, the southern La Posa Plain, the Castle Dome Plain, and the floor of the Yuma Desert. If these sediments are determined to be of Pleistocene age and exhibit a lithology conducive to the preservation of fossil resources, they would have high paleontologic sensitivity. In contrast, sediments of Holocene Age (less than 10,000 years old) are likely too young to have potential to contain significant fossil resources, and would therefore be assigned low paleontologic sensitivity. However, Holocene sediments may overlie older fossil-bearing rock units. If this is so, these subsurface rock units would have undetermined paleontologic sensitivity.

3.8.2 PREVIOUSLY RECORDED PALEONTOLOGIC RESOURCES

There have been very few known previous paleontology surveys in the planning area, which is why the majority of the field office has unknown paleontological sensitivity. Between Fiscal Year 2005 and the publication date of this PRMP/FEIS, BLM has partnered with Arizona Western College to survey and document paleontological resources in the YFO planning area. Surface specimens collected during this project are currently curated at Arizona Western College, and reports of survey results are on file at the YFO. The central goal of this partnership project is to identify significant fossil localities in the field office, and to assist the BLM with developing a paleontological sensitivity map in accordance with BLM *Manual* 8270 and BLM *Handbook* H-8270-1. This partnership between the BLM and Arizona Western College is expected to continue into future fiscal years.

Other sources of information on known paleontology localities in the planning area include the Regional Paleontologic Locality Inventory at the San Bernardino County Museum; the Mesa Southwest Museum; Northern Arizona University; the University of Arizona; the University of California, Berkeley Museum of Paleontology; and the Florida Museum of Natural History. The review of the Regional Paleontologic Locality Inventory indicated that as of 2005 the San Bernardino County Museum has no records of paleontologic resource localities from within the planning area.

There is documented paleontological research in the vicinity of Wellton and Ligurta, Arizona (see Bryan 1925, Croxen 2004, Lance and Wood 1958; Lindsay and Tessman 1974, Meade 1983, Moodie 1930, and Wood 1956). See Table 3-14 for a list of fossils identified in late Pleistocene deposits and also Late Pleistocene to Early Holocene packrat middens in this portion of the planning area.

Table 3-14
Identified Fossils in the Vicinity of Wellton and Ligurta

Taxa	Common Name
Class Amphibia, Order Anura, Family Pelobatidae, *Scaphiopus*	spadefoot toad
Class Aves	unidentified aquatic birds
Class Mammalia, Order Artiodactyla, Family Bovidae, *Bison antiquus*	short-horned bison
Class Mammalia, Order Artiodactyla, Family Bovidae, *Bison* cf. *B. alleni*	long-horned bison
Class Mammalia, Order Artiodactyla, Family Camelidae, *Camelops hesternus*	western camel
Class Mammalia, Order Artiodactyla, Family Camelidae, *Hemiauchenia* sp.	long-legged camel
Class Mammalia, Order Artiodactyla, Family Camelidae, *Palaeolama* sp.	stout-legged camel
Class Mammalia, Order Artiodactyla, Family Cervidae, *Odocoileus* sp.	deer
Class Mammalia, Order Lagomorpha, Family Leporidae, *Silvilagus* sp.	cottontail rabbit
Class Mammalia, Order Perissodactyla, Family Equidae, *Equus* sp.	large horse
Class Mammalia, Order Perissodactyla, Family Equidae, *Equus* sp.	burro-sized horse
Class Mammalia, Order Proboscidea, Family Elephantidae, *Mammuthus columbi*	columbian mammoth
Class Mammalia, Order Rodentia, Family Castoridae, *Castor canadensis*	beaver
Class Mammalia, Order Rodentia, Family Cricetidae, *Neotoma*	pack rat
Class Mammalia, Order Rodentia, Family Geomyidae, *Thomomys* sp.	pocket gopher
Class Mammalia, Order Rodentia, Family Heteromyidae, *Dipodomys*	kangaroo rat
Class Mammalia, Order Rodentia, Family Heteromyidae, *Perognathus*	pocket mouse
Class Mammalia, Order Rodentia, Family Sciuridae, *Spermophilus*	squirrel
Class Mammalia, Order Xenarthra, Family Megatheriidae, *Nothrotheriops shastensis*	shasta ground sloth
Class Mammalia, Order Xenarthra, Family Mylodontidae, *Paramylodon*? sp.	ground sloth
Class Reptilia, Order Chelonia, Family Testudinidae, *Gopherus* sp.	land tortoise
Class Reptilia, Order Squamata, Family Colubridae, *Arizona*	glossy snake
Class Reptilia, Order Squamata, Family Colubridae, *Masticophis*	whipsnake
Class Reptilia, Order Squamata, Family Gekkonidae *Coleonyx*	gecko

Source: Croxen 2004

3.9 VISUAL RESOURCES

One component of the BLM's multiple-use mission includes ensuring that the scenic values of the public lands are considered before authorizing uses that may have adverse impacts to the landscape. The VRM system involves inventorying scenic values and establishing management objectives for those values through the RMP process, and then evaluating proposed activities to determine whether they conform to the established management objectives. The VRM system is the BLM's tool to document a proposed activity's potential impacts to the landscape, develop mitigation measures to minimize those impacts, and maintain the scenic values of the public lands for the future. The BLM's VRM system is implemented according to guidelines in BLM *Manual* 8400, *Information Bulletin* No. 98-135, and IM No. 98-164.

The various RMPs, RMP amendments, and *Management Framework Plans* that are currently being implemented within the planning area allocated all public lands as VRM Classes I through IV. However, none of these various planning documents published maps of the different classes; instead, geographical locations and landscape types were designated to certain VRM classes. The absence of VRM class maps has left many areas of VRM designations up to differing interpretations and has been problematic in the management of the planning area's landscapes.

Currently, the planning area maintains 167,800 acres of VRM Class I lands, 15,200 acres of VRM Class II, 1,135,000 acres of VRM Class III, and zero acres of VRM Class IV lands.

In 2005, the YFO completed a new Visual Resource Inventory specifically for this RMP effort. The inventory was accomplished through a multi-agency, interdisciplinary team process according to the systematic inventory procedures described in BLM Handbook H-8410-1—*Visual Resource Inventory*. The four classes within the VRM Inventory were based on professional determinations of scenic quality, visual appeal, distance zones from which the landscape is viewed, and public sensitivity to changes in the landscape character. The results of the 2005 VRM Inventory are represented on Map 3-17.

3.10 WILDERNESS CHARACTERISTICS

Wilderness characteristics do not currently exist under the 1987 *Yuma District RMP*, as amended, but these characteristics may be considered for any new land use plans or amendments. BLM IM No. 2003-275-Change 1 provides guidance regarding the consideration of wilderness characteristics in the land use planning process. The IM states that BLM may consider information on wilderness characteristics along with information on other uses and values when preparing LUPs.

Through the planning process, the best mix of resource use and protection will be determined consistent with the multiple-use and other criteria established in FLPMA and other applicable laws, regulations, and policies. Lands with wilderness characteristics may be managed to protect and/or preserve some or all of those characteristics. A variety of LUP decisions can be made to protect wilderness characteristics, such as establishing VRM class objectives to guide the placement of roads, trails, and other facilities; establishing conditions of use to be attached to permits, leases and other authorizations to achieve the desired level of resource protection; and designating lands as open, closed, or limited to OHVs to achieve a desired visitor experience.

Public land use proposals, including the protection of lands with wilderness characteristics may be considered during the preparation of a LUP amendment or revision. The BLM completed an assessment of wilderness characteristics on approximately 301,200 acres of public lands through a multi-agency, interdisciplinary team process. The BLM Arizona State Office provided the protocol for the assessment process, which was completed in 2005. The assessment teams identified lands that exhibit a high degree of naturalness, provide outstanding opportunities for solitude, and provide outstanding opportunities for primitive and unconfined types of recreation. The results of the assessments are represented on Table 3-15 and on Map 3-18.

Table 3-15
Wilderness Characteristics Assessment Results

Components of Wilderness Characteristics Identified	BLM Acres
Naturalness	40,800
Naturalness and Solitude	41,000
Naturalness, Solitude, and Primitive and Unconfined Recreation	111,400
Primitive and Unconfined Recreation	66,100
Naturalness and Primitive and Unconfined Recreation	23,900
Solitude and Primitive and Unconfined Recreation	6,100
No Wilderness Characteristics Identified	11,900
Total Acreage of Lands Assessed for Wilderness Characteristics	301,200

The YFO then considered BLM policy, other resource allocation proposals, and the practicality of management to develop the Chapter 2 alternatives to manage for wilderness characteristics.

3.11 LIVESTOCK GRAZING

3.11.1 GRAZING RESOURCES

Grazing in the planning area is administered through permits held on specific parcels of land known as allotments. Some of these allotments cross the planning area boundary, and one allotment (Calhoun, 3,012 acres) falls entirely outside the northern boundary (Map 3-19). However, since these allotments are managed by BLM, the allotment management will be addressed.

Approximately 1,184,464 acres of BLM-administered lands are managed as part of grazing allotments ranging in size from 523 to 234,645 acres (USDOI BLM 2003b; 2003c; 2003d). All authorized use in the planning area is specific to cattle. Resource management within an allotment is based on AUMs where one AUM is equal to the forage required to sustain one cow-calf pair for a month (approximately 800 pounds dry forage). Annual and seasonably available species are considered when determining the AUMs available and the season of use authorized.

3.11.2 GRAZING ADMINISTRATION

A. GRAZING PERMITS AND LEASES

Grazing use on an allotment is authorized through the issuance of a grazing permit or lease. The permit or lease describes the class of livestock, number of livestock, and season of use. BLM analyzes effects of proposed grazing according to the NEPA process and conducts an Environmental Assessment prior to permit issuance or renewal. Historically, permits and leases were authorized for a period of 10 years. However, the most recent assessments (2003) authorized use for only five years to allow for review through this planning process. Leases of duration less than 10 years were found to be in the best interest of sound land management (USDOI BLM 2003b; 2003c; 2003d).

Grazing use may be authorized through either Section 3 or Section 15 of the Taylor Grazing Act (P.L 73-482). Grazing use under Section 15 of the Act is authorized through leases, for lands outside of an established Grazing District. Leases are perennial with forage production generally adequate to support grazing on a regular (annual) basis. The class of livestock, AUMs, season of use, and other prescriptions or limitations are specified in the approved lease (USDOI BLM 2003b; 2003c; 2003d). Grazing permits apply to lands within Grazing Districts, under Section 3 of the Taylor Grazing Act, and include allotments classified as either perennial, perennial-ephemeral, or ephemeral. There are six perennial leases within the planning area. For perennial-ephemeral allotments, the stocking rate is determined from the year-long grazing capacity of the available perennial forage. Additional livestock grazing use can be authorized for ephemeral forage, when sufficient annual forage is present and such use does not conflict with other resource uses and needs or damage the perennial vegetation resource (USDOI BLM 1987a). Allotments with unreliable forage production or infrequent or sporadic use capabilities are classified as ephemeral and use is authorized only when annual forage is available and applied for by the permittee (USDOI BLM 2003b; 2003c; 2003d).

B. ALLOTMENTS

Allotments are located within three general regions in the planning area: Dateland area, Quartzsite area, and Vicksburg area. General description of allotments in the vicinity of these communities is provided below and in Table 3-16 (see next page) and Map 3-19.

1. Dateland Area

Grazing use in the Dateland area has been extremely limited due to lack of facilities, small, widely scattered tracts of public land, and intermingled private and State lands not controlled by the lessees. Non-use is common and range improvements are generally in poor condition. Recommendations made during standard and guide assessments include retiring grazing on several allotments and reviewing the perennial classification on others (USDOI BLM 2003b; 2003c; 2003d).

2. Quartzsite Area

The Ehrenberg, Martinez, Scott, and Weisser Allotments are classified as ephemeral allotments. There has been no use on the Ehrenberg, Martinez, and Scott Allotments for the last 20 years. For the most part, livestock handling facilities no longer function. Some limited grazing use has been authorized on the Weisser Allotment over the last 10 years, but use is being heavily restricted by increasing recreational use and the growth of the Town of Quartzsite. The Bishop Allotment is a Section 15 allotment and has been consistently utilized by livestock for 20 years. Recommendations made during standard and guide assessments include retiring grazing on several allotments and reviewing the perennial classification on others (USDOI BLM 2003b; 2003c; 2003d).

3. Vicksburg Area

Grazing use has been year-long on the Crowder-Weisser and K Lazy B Allotments for many years. The Calhoun Allotment is used as pasture of the Crowder-Weisser Allotment, as the grazing privileges are controlled by the same permittee, and has been utilized annually. Grazing

use on the Eagletail Allotment has been primarily seasonal. However, year-long use has occurred. Livestock management facilities are in place and well maintained. These developments are used to attain proper livestock distribution throughout the allotment. With the exception of the Vicksburg Area, grazing use in the planning area is a very minor use of the public lands. Recommendations made during standard and guide assessments include retiring grazing on several allotments and reviewing the perennial classification on others (USDOI BLM 2003b; 2003c; 2003d).

Table 3-16
Allotments' Administered and Authorized Use by BLM in the Planning Area

Allotment Name, Number, and Location	Management Category	Section 3/15	Perennial/ Ephemeral	Authorized Use (AUMs)	BLM Acres
05001 – Bishop (Q)	C	15	P	516	26,100
03012 – Calhoun (V)	C	3	P/E	1,728	40,800*
05044 – Calient Farms (D)	C	15	P	180	2,400
03022 – Crowder-Weisser (V)	M	3	P/E	15,758	237,900†
05053 – Dateland Ranch (D)	C	15	P	900	16,600
03028 – Eagletail Ranch (V)	M	3	P/E	1,400	202,200
03028 – Eagletail Ranch (V)	C	3	E	0	107,800
03088 – Ehrenberg (Q)	C	3	E	0	54,500
05000 – Hyder Ranch (D)	C	15	P	960	4,100
03047 – K Lazy B (V)	M	3	P/E	1,861	130,300‡
03097 – Martinez (Q)	C	3	E	0	60,200
03056 – Morton (Q)	C	3	E	0	24,900
03064 – Palomas (D)	C	3	E	0	109,900
05036 – Palomas Ranch (D)	C	15	P	424	4,500
03075 – Scott (Q)	C	3	E	0	123,800
05003 – Trust #1347 (D)	C	15	P	144	6,700
03096 – Weisser (Q)	C	3	E	0	67,200
05006 – Whitewing (D)	C	15	E	36	500
			Total	23,907	1,363,700

AUM = Animal Unit Month, D = Dateland area, Q = Quartzsite area, V = Vicksberg area
Maintain (M) allotments are allotments where current conditions are at or near the goals and objectives for the allotment and management is not an issue. Custodial (C) allotments are those allotments where it would not be cost beneficial to attempt to improve current conditions on an allotment.
*This allotment is completely in the LHFO but is managed by the YFO. Grazing Decisions would be made in this revision of the RMP.
** Approximately 5,800 acres of public land are within the LHFO but is managed by the YFO.
†Approximately 116,600 acres of public land are within the LHFO but is managed by the YFO.
‡Approximately 52,000 acres of public land are within the LHFO but is managed by the YFO.

C. RANGE HEALTH ASSESSMENTS

The condition of the resources on allotments and the potential impacts of grazing are evaluated during the permit and lease renewal processes. A BLM interdisciplinary team evaluates allotments in accordance with the *Arizona Standards for Rangeland Health and Guidelines for Grazing Administration* (*Standards and Guidelines*) (USDOI BLM 1997a). Standards are descriptions of the desired condition of the biological and physical components and characteristics of rangeland. Guidelines are management approaches, methods, and practices related to grazing management that will lead to achieving those standards.

Rangeland Health is analyzed through allotment specific goals and objectives. All allotments in the planning area fall within the Lower Sonoran Desert Scrub Land Resource Unit. Within this Land Resource Unit are 26 different ecological sites characterized by unique soil conditions, precipitation regimes, and plant communities. Each Land Resource Unit has unique potential plant composition and production, precipitation, and soil conditions.

Ecological status is determined by comparing current vegetative composition to the potential described in the ecological site description. Other resource needs and outside influences on the site are also considered in determining the role of grazing in meeting desired conditions. Allotment evaluations include identification of factors influencing the condition of the resources. Where grazing is a significant factor in failure to achieve rangeland health standards, BLM has until the next grazing season to implement corrective actions. Such actions may include adjustment to grazing duration, timing, intensity, forage utilization, or installation or implementation of range improvement projects. Climax or potential natural communities are not always the most desirable communities depending on the other goals and objectives for a specific area. The community targeted is dependant on the site specific uses proposed and other use and resource goals and objectives.

In 2002 and 2003, all allotments managed by the YFO were assessed in accordance with the *Standards and Guidelines* (USDOI BLM 1997a). Vegetation communities are noted to be producing at or near potential, and no specific trend was noted for any allotment. All permits and leases were reauthorized with terms and conditions of use (i.e., implemented guidelines) (USDOI BLM 2003b; 2003c; 2003d).

D. RANGE IMPROVEMENT PROJECTS

Range improvements are installed and projects are implemented to improve condition or facilitate management of resources. In the planning area, most range improvements consist of such structures as fences, wells, and livestock handling facilities, many of which are in disrepair or non-functioning. Fences make it possible to control the season of use, and exclude grazing from selected areas. Water developments improve distribution of livestock as well as provide accessibility for some species of wildlife.

New range improvements can be authorized on public land under a Cooperative Range Improvement Agreement or Range Improvement Permit. All improvements are constructed according to BLM standards and specifications. Range improvements are infrequently constructed in the planning area due to the low intensity of livestock use.

3.11.3 FACTORS INFLUENCING GRAZING

A variety of environmental, economic, and social factors weigh heavily in planning decisions related to livestock grazing in the planning area. Grazing management is adjusted during renewal of permits and leases and at other times as appropriate in response to these factors. Site-specific factors, such as those listed below, have an influence on grazing management.

Due to the ephemeral nature of annual grass and forb production and the otherwise low productivity of upland sites in the Sonoran Desert Ecoregion, it is difficult to make long-term use plans that adapt to the resource available in any given year.

Noxious/invasive non-native plant species effectively compete with native vegetation for resources and continue to expand in the planning area. These species are unpalatable to most classes of domestic livestock, and their expansion reduces the amount of available forage. Livestock use must be adjusted in response to reduced forage availability to ensure other portions of the allotment are not overutilized and that other resource conflicts do not occur.

Recreational use in the planning area (e.g., camping, long-term visitors, OHV use, etc.) continues to grow. Where conflicts with grazing use occur, decisions must be made regarding which use is most compatible with resources available. Grazing is managed to eliminate or minimize such conflicts as appropriate.

3.12 MINERAL RESOURCES

This section assesses the mineral resource occurrence and development potential for all mineral resources owned by the Federal government and managed by BLM, including those on lands with split estate. Areas within the planning area that are withdrawn from mineral location entry are presented below.

Military

- BMGR, West managed by U.S. Marine Corps; East managed by the U.S. Air Force
- YPG, managed by the U.S. Army

BLM

- Gila River Cultural Area ACEC
- Big Maria Mountains Wilderness
- Eagletail Mountains Wilderness
- Little Picacho Wilderness
- Muggins Mountains Wilderness
- New Water Mountains Wilderness
- Palo Verde Mountains Wilderness
- Riverside Mountains Wilderness
- Trigo Mountains Wilderness

USFWS

- Cabeza Prieta NWR
- Cibola NWR
- Imperial NWR
- Kofa NWR

Reclamation

- First Form Withdrawal

3.12.1 DESCRIPTION OF MINERAL RESOURCES

There are three basic types of Federal energy and mineral resources: leasable, locatable, and salable as defined by Federal laws, regulations, and legal decisions. The following sections discuss the known occurrences, activity, and potential of mineral resources in the planning area. Appendix 3-A provides a summary of the exploration history, current lease status, and 20-year projections for reasonable foreseeable development of leasable, locatable, and salable minerals in the planning area.

A. LEASABLE MINERALS

Federal leasable minerals are fluid or solid minerals that can be developed after obtaining a lease from BLM. Leasable fluid minerals include oil, gas, geothermal energy, and CO_2. Leasable solid minerals include coal, potash, sulfur, and sodium. Leasing for mineral development may be accomplished by competitive bid, as typically is the case for oil and gas. A lease sale may be initiated by an Expression of Interest nomination, wherein an interested party nominates a parcel for exploration and development. If there is no competitive interest in the lease of a parcel, the interested party may obtain a non-competitive lease.

A successful applicant for an oil and gas lease is required to pay rent on the leased parcel. Rental costs range from $1.50 per acre per year for the first five years to $2.00 per acre per year for the last five years of a standard 10-year lease. Competitive bonus bids are determined by oral auction on a per-acre basis and range from approximately $1.00 per acre for a parcel having little or no competitive interest up to $10.00 per acre for a parcel having high competitive interest. The lessee also is required to pay royalties on the sale of mineral resources produced from the leased parcel. For example, oil and gas royalties are 12.5 percent of sales. Royalty payments are paid to the U.S. General Revenue Fund.

The leasable fluid minerals addressed in this report are oil, natural gas, and CO_2. There are no known coal, potash, sulfur, or sodium resources in the planning area.

1. Oil and Gas

Oil and gas are non-renewable energy fluid mineral resources that typically are discovered and exploited by drilling exploratory and development wells into oil- and/or gas-bearing sedimentary rocks. Such sedimentary rocks have reservoir-quality porosity, are proximal to petroleum source rocks such as organic-rich shale or coal, and contain an accumulation of oil and/or gas that has been confined by a structural or stratigraphic trap.

BLM-administered land in the planning area identified as having moderate oil and gas potential is 50,200 acres (Tetra Tech 2005a). There are no documented proven reserves in the planning area and currently only minor leasing interest. No drilling activity has occurred since 1987. Exploration for oil and gas in the planning area has taken place primarily in the Yuma Basin (Map 3-20). The Yuma Basin is located in the southwestern corner of Arizona and includes the entire area south of Yuma to Mexico. The Yuma Basin is part of the Salton Trough, a tectonic structure related to the opening of the Gulf of California and the San Andreas fault system. The Yuma Basin contains an exceptionally thick sequence of marine, estuarine, and non-marine sediments of Tertiary Age that thickens toward the south in the northern part of the Gulf of California (Rauzi 2001). Butler (1995) describes the area as part of Province 025 (Yuma Desert), the Altar Basin (proto-Gulf of California), and states that the area contains a hypothetical oil and non-associated gas play that includes source rocks, reservoir rocks, and traps. He also notes that possibly commercial Miocene gas was reported as discovered in 1981, 14 miles offshore in the Gulf of California in deltaic sediments of the Colorado River. Further, Butler (1995) records the Exxon #1 Yuma-Federal well, drilled in 1973, which had a vitrinite reflectance measurement at total depth (11,444 feet) of R_o 1.1 percent.

Guzman (1981) suggested that the hydrocarbon-rich Los Angeles and Ventura marine basins in southern California may have been in proximity to the Yuma Basin before the California basins moved northward along the San Andreas Fault system. Under this scenario, oil and gas generated in the deep waters of the Los Angeles Basin migrated up-dip into folds that were generated by movement within the San Andreas Fault system. These hydrocarbon traps could still be present in the southern part of the Yuma Basin. Brennan (1989) concluded that these strata have high hydrocarbon potential in the eastern half of the Yuma Basin within the BMGR.

In addition to the Yuma Basin, the Mohawk Basin and the Harquahala Basin are Tertiary Basins identified by Rauzi (2001) that may be similar to productive Tertiary basins in Nevada. These contain strata that could include petroliferous limestone buried deeply beneath thick evaporate deposits (Rauzi 2001).

a. Known Oil and Gas Occurrences and Prospects

From 1925 to 1987 there were 26 exploratory wells drilled in or near the planning area (Brennan 1989; Rauzi 2001) (Map 3-16). In 1973, Exxon drilled the #1 Yuma-Federal well to a depth of 11,444 feet. There were no reported oil or gas shows in this well. A surface occurrence of an oil seep and early Miocene to late Oligocene petroliferous thinly bedded limestone is reported in the northwest portion of the Gila Bend Mountains (Rauzi 2001). Seven oil shows and two gas shows are recorded in the Yuma Valley Gas and Oil #1 Musgrove test well, drilled to 4,870 feet in June of 1940 (Brennan 1989). Dowling Petroleum #1 State was drilled in 1983 to a total depth of 2,925 feet and recorded an oil and gas show, while the An-Son #1-23 State well, drilled to 2,883 feet in 1980, recorded an oil show.

Central Oil Company's #1 Aman well was drilled to 2,850 feet and recorded one oil show (date is unknown).

b. Oil and Gas Leasing Activity

Regulations applicable to Federal oil and gas leasing in the planning area include the Mineral Leasing Act of 1920, the Mineral Leasing Act of 1947, Mining and Minerals Policy Act of 1970; Federal Onshore Oil and Gas Leasing Reform Act of 1987; and 43 CFR 3100—Oil and Gas Leasing. Policy/guidance specific to BLM include Manual 1601—*Land Use Planning*; BLM Manual Section 1624-2—*Supplemental Program Guidance for Fluid Minerals*; and BLM Manual Series 3100—*Onshore Oil and Gas Leasing*.

Leasing of Federal minerals for exploration and development of oil and gas begins by the submittal of an Expression of Interest to the Arizona State Office of the BLM. The Expression of Interest is an informal nomination by an interested entity, such as an energy company, to request that certain lands be included in a competitive lease sale. BLM administers competitive lease sales, which are held on a quarterly schedule following public notification of the sale. Permitting for oil and gas exploration and drilling within the State is administered by the Arizona Oil and Gas Conservation Commission.

Currently there are no active petroleum leases in the planning area. Numerous closed leases are present south of Yuma in seven townships west of the BMGR. A sampling of lease information from those areas indicates that much of the activity took place during the 1980s through the BLM. Most of the leases were on land that is now administered by Reclamation or on State land. However, these former leases are adjacent to BLM-administered land. A database containing this information is available on the following website: http://www.geocommunicator.gov

2. CO_2 and Helium

CO_2 and helium are non-renewable non-energy fluid mineral resources typically discovered by exploratory oil and gas wells that encounter natural gas or non-flammable gas. Helium is typically associated with CO_2 gas and, for the purposes of this PRMP/FEIS, the two gases are considered one resource. If CO_2/helium can be economically separated, collected, and delivered to a market, then a CO_2/helium gas field can be potentially developed.

a. CO_2/Helium Known Occurrences and Prospects

There are no known occurrences or prospects for CO_2/helium in the planning area. However, there are known occurrences of CO_2/helium in volcanic terrain comparable to the planning area where volcanic outgassing is the proposed source for CO_2/helium (Studacher 1987). Although CO_2/helium may not be primary targets for future exploration, gas analyses may confirm the presence of CO_2/helium in test wells.

3. Geothermal Resources

BLM has established that geothermal resources are renewable, leasable minerals. The evaluation of geothermal resources follows the guidelines for mineral resources. Geothermal energy is natural heat from the interior of the earth. Sources of geothermal energy include artesian hot

springs and wells that tap into groundwater or dry rock at elevated temperatures resulting from high heat flow gradients in the subsurface.

No high or moderate temperature geothermal resources exist in the planning area. There is no reported leasing or development activity for geothermal energy resources in the planning area. Known geothermal resources are present in the Imperial Valley–Salton Sea area, which may expedite the maturation of the shallower source rocks nearest the California border. There are four low-temperature geothermal resource regions identified in the planning area: two in Yuma County, one in La Paz County, and one in Maricopa County (Witcher et al. 1982; AGR MAP 2005). There has been development of these energy resources only for aquaculture. Information on the known occurrences of geothermal energy resources in the planning area is reported by the Arizona Geological Survey (formerly the State of Arizona Bureau of Geology and Mineral Technology) (Witcher et al. 1982). Most of the wells in the planning area are used for agricultural purposes with any thermal properties of the waters not being utilized. Well temperatures ranging from 30 to 40º Celsius have been recorded (USDOE 1979). Deeper wells could tap higher temperatures. Three of the known geothermal regions reported are thermal wells or loose clusters of thermal wells that have low-temperature geothermal resources. The Hyder region is associated with a cluster of wells and the hot spring at Agua Caliente (102º F [39º C]) in Hyder Valley. Geothermal water (105º F [41º C]) at Hyder has been developed for direct use for aquaculture, raising fish (Oregon Institute of Technology 2004). Another hot springs is at an isolated location at Radium Springs (140º F [60º C]) just north of the Gila River northeast of Wellton (Hot Springs Enthusiast 2005).

Geothermal resources are classified according to temperature. High temperature resources are above 302° Fahrenheit (150° C). Moderate temperature resources are between 194° F and 302° F (90° C and 150° C). Low temperature resources are below 194° F (90° C). Only those resources with high enough temperatures to produce steam have been developed commercially for power generation. Low temperature and moderate temperature geothermal water can be used for ground-source heat pumps and without the use of a heat pump for applications such as heating of buildings and use in industrial processes, greenhouses, aquaculture, and resorts. Potential uses of the known resources include residential and commercial space heating, greenhousing, aquaculture, crop and food processing, and heated swimming pools and spas.

Regulations applicable to geothermal leasing of Federal minerals include the Mineral Leasing Act of 1920, Mineral Leasing Act of 1947, Mining and Minerals Policy Act of 1970, Geothermal Steam Act of 1970, and 43 CFR 3200.

B. LOCATABLE MINERALS

Locatable minerals are defined as those minerals that make the land more valuable because of their existence, are recognized as a mineral by the standard experts, and are not subject to disposal under some other law. Many solid minerals are locatable, but due to complexities in the law there are exceptions (such as leasable coal, potash, sulfur, and sodium). Locatable minerals include both metallic minerals (e.g., gold, silver, copper, lead, uranium) and non-metallic minerals (e.g., gemstones, kaolin, fluorspar, perlite). Rights to locatable minerals are obtained by filing a mining claim.

1. Metallic Locatable Minerals

The planning area has many designated mineral districts (Keith et al. 1983; Welty et al. 1985). A list of mines and prospects located on BLM-administered land that are open to mineral entry is presented in Table 3-17 according to the commodity type (gold, silver, copper, etc.). This list is based on the Arizona Lands Resource Information System Minerals Available System (Arizona State Land Department 2005). A number of the districts are excluded from consideration in this report, because they are within areas that have been withdrawn from mineral location.

There are seven gold districts within the planning area in Arizona and one in California along the Colorado River. Four of these (Moon Mountains, Middle Camp, La Paz, and Southern Plomosa) are located to the north, west, and east of the Town of Quartzsite in the northern portion of the planning area. Two gold districts are located to the east of the Kofa NWR. These are the Sheep Tanks and the Gila Bend Mountains Districts. A gold district is also located in California in the far southeastern extent of the Chocolate Mountains adjacent to the Colorado River. Silver has been produced from some of the historic gold mines, as well as lead and zinc, although they are not likely targets in their own right.

Base metals within the districts include copper, lead, and zinc. Most of the base metal districts are located within areas excluded from mineral entry such as the Kofa NWR, YPG, Wilderness areas, and other withdrawals. For example, the Castle Dome District lead-zinc-silver district is entirely enclosed by the Kofa NWR.

There are several uranium prospects in the Muggins Mountains mining district. No uranium has been produced from this area, and the resource potential is not well defined. However, the prospects are significant enough to have generated interest among major mining companies, especially during the period of elevated uranium prices during the late 1970s and early 1980s.

Known Occurrences and Prospects of Metallic Locatable Minerals

Below is a summary of information on specific mines, historical mines, prospects, and areas of mining interest. Map 3-21 shows the locations of metallic mineral occurrences and prospects. There are 22 mineral districts in the planning area, most of which have production data (Keith et al. 1983; Welty et al. 1985).

Gold. There are two gold mines in the planning area: the Verdstone Mine, located in the Sheep Tanks District, which is a former gold mine that includes an open pit as well as underground workings, and the Copperstone Gold Mine, located northeast of the Moon Mountains District, which was operational between 1987 and 1992.

Placer mining for gold has taken place since pre-Spanish times. Recreational placer mining is popular in the districts surrounding the Town of Quartzsite, such as the La Paz and Middle Camp districts. The Southern Plomosa district has also produced placer gold. Terrace gravels on the north slope of the Gila Mountains have intermittently produced placer gold. Placer gold also has been mined historically in the Potholes area of the southeastern Chocolate Mountains in California, along the Colorado River.

Table 3-17
Mining District, Commodities, and Production Locations in Areas for Mineral Entry

Mining Areas in District	Name	Deposit Type[1]	Town-ship	Range	Sections	Production Base or Precious (tons)	Gold (ounces)	Silver (ounces)	Copper (lbs)	Lead (lbs)	Zinc (lbs)	Manganese (lbs)	Uranium (lbs)
1	Plomosa Pass	1a	5N	18W	1								
			6N	18W	36								
1	La Cholla	2	3N	20W	2, 3, 10, 11, 15, 16, 17, 20, 21	300	300	2,600	36,000				
2	Southern Plomosa (part)	2	3N	18W	1, 2, 3, 4, 5, 8, 9, 10, 12, 15, 16, 17, 33, 34, 35, 36	3,500	1,000	26,000	457,000	5,000			
			4N	18W	22, 23, 24, 25, 26, 27, 32, 33, 34, 35								
1	Moon Mtns.	3	5N	20W	5, 7, 18	300	800	100					
			5N	21W	2, 3, 12, 13								
			6N	20W	31, 32, 12 (includes Copperstone Mine)								
2	Middle Camp	3	3N	20W	4, 5	800	200	200	200	116,000			
			4N	20W	20, 21, 22, 26, 27, 28, 29, 32, 33								
3	La Paz	3	4N	21W	22, 23, 25, 26, 27, 34, 35, 36	11,000	1,600	700	16,000	3,000			
4	Grand Central	3	1S	23W	25, 35, 36	50	60						
5	Sheep Tanks (part)	3	1N	14W	31	17,000	6,000	34,000	2,000				
			1S	14W	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 16, 17, 18 (includes Verdstone Mine)								
6	Gila Bend Mtns/Webb	3	1S	11W	19, 20, 21, 27, 28, 29, 30	400	50	200	27,000				
			2S	11W	11, 12, 15, 16, 21, 22, 23, 24								
7	Yuma	3	8S	23W	25, 26, 27, 34, 35, 36	500	100						

Table 3-17
Mining District, Commodities, and Production Locations in Areas for Mineral Entry (cont.)

Mining Areas in District	Name	Deposit Type[1]	Town-ship	Range	Sections	Production Base or Precious (tons)	Gold (ounces)	Silver (ounces)	Copper (lbs)	Lead (lbs)	Zinc (lbs)	Manganese (lbs)	Uranium (lbs)
8	So. Chocolate Mtns, CA	3	15S	24E									
	Potholes												
	Senator												
	Three Cs												
	Golden Dream												
1	Mohawk (part)	4	8S	15W	10, 11, 12, 14, 15			4,700	800	4,000			
2	New Water (part)	4	3N	17W	1, 10, 12, 13, 15, 20, 24	10,000	200	314,000	58,000	499,000	47,000	512,900	
3	Silver (part)	4	3S	23W	25, 34, 35, 36	103,000	100 or less	1,311,000	2,000	2,456,000			
			4S	23W	1, 2, 12, 25, 36								
1	Trigo Mtns.	6a	2S	23W	1, 11, 12, 13, 14, 23, 24, 25, 26, 27, 33, 34, 35							2,096,500	
			3S	23W	2, 3, 4, 9, 10								
2	Eagle Tail	6a	1N	12W	27, 28, 29, 32, 33, 34, 35, 36							19,000	
			1S	12W	1, 2								
3	Metate	6a	3N	21W	1, 2, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26							126,300,000	
1	Cinnabar (part)	7	3N	20W	30, 31	100	10 or less	200	6,000				
1	Tungsten Hill	8	5N	20W	20, 21, 22, 23, 25, 26, 27, 34, 35, 36	No recorded production							
2	Dome	8	8S	20W	8, 18								8
			8S	21W	10, 11, 12, 13, 14, 15								

Table 3-17
Mining District, Commodities, and Production Locations in Areas for Mineral Entry (cont.)

Mining Areas in District	Name	Deposit Type[1]	Town-ship	Range	Sections	Production Base or Precious (tons)	Gold (ounces)	Silver (ounces)	Copper (lbs)	Lead (lbs)	Zinc (lbs)	Manganese (lbs)	Uranium (lbs)
1	Muggins	10b	7S	18W	31	Uranium prospects							
			7S	19W	34, 35, 36								
			8S	18W	5, 6, 7, 8, 17, 18								
			8S	19W	1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23, 24								
2	Big Chimney	10c	9S	20W	8, 9, 10, 15, 16, 17								3

[1]Deposit Type: 1 Copper: (a) porphyry and (b) stratabound; 2 Copper with or without gold or lead; veins; 3 Gold with or without copper or lead; 4 Lead-zinc-silver veins and replacements; 6 Manganese; 7 Mercury deposits; 8 Tungsten; 10 Uranium with or without vanadium

Uranium. The Red Knob prospect is located in the Muggins Mountains, approximately 30 miles east of Yuma. Uranium minerals occur in the lower member of the Kinter Formation, associated with a northwest-trending normal fault near an intrusive rhyolite dome. A 1.5-foot-thick silicified mudstone bed is exposed along a 15-foot-long trench at the portal of a collapsed and partly filled adit at least 35 feet long. Weeksite, a rare uranium silicate, calcite, chalcedony, mimetite, and vanadinite occur in a silicified mudstone bed. Mineralized rock with a geochemical signature similar to that in the Red Knob prospect may also occur elsewhere in the Muggins Mountains District (Smith et al. 1989).

2. Non-metallic Locatable Minerals

Known Occurrences and Prospects of Non-metallic Locatable Minerals

Occurrences and prospects of non-metallic locatable minerals within areas of BLM-administered land open for mineral entry are presented on Map 3-22, based on the *Arizona State Mineral Resources Data System* (Mason and Arndt 1996). The information provided below is based on Phillips (1987); Keith et al. (1983); U.S. Geological Survey (USDOI USGS 1999); and BLM (USDOI BLM 2004d).

Alunite. Alunite, a hydrous sulfate of aluminum and potassium, is used as an alternative to bauxite for alumina in aluminum production. As of 1987, alunite had not been mined in Arizona. There is one deposit in La Paz County, near the Town of Quartzsite, although this deposit is not identified in the Mineral Resources Data System minerals database.

Asbestos. Asbestos is the generic name for a group of fibrous mineral silicates found in nature. There are two deposits of asbestos identified in the planning area, one in La Paz County, and one in Yuma County, although these are not identified on the Mineral Resources Data System. According to Phillips, there has been no asbestos production in Arizona since 1982, and there is no known asbestos production in the planning area as of the date of this report.

Barite. Barite is produced for many applications but use in oil well drilling mud is the most common, due to the high specific gravity of 4.5 grams/cubic centimeter. Barite occurs in numerous locations within the planning area in veins associated with faults, breccias, and fracture zones. It is often a gangue mineral or byproduct in precious and base metal mines and prospects. There are approximately 20 barite deposits identified by Phillips (1987) within the planning area, but these do not fall within areas of BLM-administered land open for mineral entry.

Gypsum. Gypsum is a hydrous calcium sulfate that occurs in evaporite basin deposits in most Arizona counties. It is used in making plaster and as an agricultural amendment. There are approximately eight deposits identified by Phillips (1987) within the planning area, with only one of these in Yuma County, known as the Castle Dome occurrence. These are not located within areas open for mineral entry.

Mica. Mica is the general name for a group of complex hydrous potassium aluminum silicate minerals which share the common physical property of a perfect basal cleavage. Sheet mica is used in the electronics industry, where the material's excellent electrical insulation properties and resistance to heat are put to use. Six mica deposits occur within the planning area, although they are in areas that are closed to mineral entry.

C. SALABLE MINERALS

BLM defines common varieties of sand, gravel, stone, pumice, pumicite, cinders, and clay as salable, not locatable (USDOI BLM 1997d). Salable minerals include materials used for building and construction, both commercially and privately. Sand, gravel, aggregate, cinders, decorative rock, and building stone are the more common salable minerals. Extraction of salable minerals from public land requires either a sales contract or a free-use permit. Sales are at the appraised fair-market value. Under a free-use permit, salable minerals may be provided at no cost to government agencies for use in public projects. Sand and gravel resources are the focus of the information presented below due to their current and future economic importance to Yuma and the planning area. The locations of known salable mineral deposits are shown in Map 3-23.

Salable Mineral Known Occurrences and Prospects

The locations of known occurrences and prospects for salable minerals are too numerous to discuss on an individual basis. In general, aggregate resources are associated with major river channels of the Colorado and Gila rivers (including the reaches of the Colorado River on tribal land) major wash systems, and foothill terraces flanking the Gila Mountains.

3.12.2 POTENTIAL FOR OCCURRENCE OF MINERAL RESOURCES

The potential for occurrence of mineral resources is determined using guidance provided in BLM Manual 3031—*Energy and Mineral Resource Assessment*. The manual sets standards for assessing, classifying, and reporting the potential for occurrence of mineral resources on lands managed by BLM.

A. DEFINITION OF MINERAL RESOURCE POTENTIAL

The potential occurrence of a mineral resource is a prediction of the likelihood that the mineral resource will occur in a given area. The potential occurrence of a mineral resource includes both exploitable and potentially exploitable occurrences, and does not evaluate whether the mineral resource can be developed economically. The four categories of mineral potential, as defined in BLM *Manual* 3031, are as follows:

- **No potential**. The geologic environment, inferred geologic processes, and lack of mineral occurrences do not indicate potential for accumulation of mineral resources;
- **Low potential (L)**. The geologic environment and inferred geologic processes indicate low potential for accumulation of mineral resources;
- **Moderate potential (M).** The geologic environment, inferred geologic processes, and reported mineral occurrences or valid geochemical/geophysical anomalies indicate moderate potential for accumulation of mineral resources; and

- **High potential (H).** The geologic environment, inferred geologic processes, and reported mineral occurrences or valid geochemical/geophysical anomaly, and known mines or deposits (within the same type of geologic environment) indicate high potential for accumulation of mineral resources.

In addition to these four categories, within each mineral potential category the potential must be supported according to a level of certainty regarding the available data. The level of certainty is a measure of the confidence in the data that was assessed. The four mineral potential categories are displayed on the mineral resource potential maps (Maps 3-21 through 3-23). The levels of certainty are annotated in the narrative of mineral resource potential using the letter designations described below.

A The available data are insufficient and/or cannot be considered as direct or indirect evidence to support or refute the possible existence of mineral resources within the respective area.

B The available data provide indirect evidence to support or refute the possible existence of mineral resources.

C The available data provide direct evidence, but are quantitatively minimal to support or refute the possible existence of mineral resources.

D The available data provide abundant direct and indirect evidence to support or refute the possible existence of mineral resources.

The following text sections describe the level of potential for occurrence of the various commodities. Clusters of known mines and prospects (or hydrocarbon exploration holes) are rated as having high potential. Areas adjacent to these clusters are rated as moderate, because of geologic similarities to the areas of high potential. For non-metallic locatable and salable minerals, all areas not interpreted as having high potential are interpreted as having moderate potential because these types of minerals may be present in many areas, even though they have not been identified to date. For the metallic locatable minerals, areas lacking known occurrences and lacking similar geologic characteristics are rated as having low or no potential and encompass all the areas outside the moderate potential boundaries. The boundaries are interpretive based on the available data and best professional judgment.

B. LEASABLE MINERALS—OIL AND GAS POTENTIAL

Oil and gas potential is allocated to areas that have the following characteristics:

- Source for hydrocarbons: for example, an organic-rich shale or coalbed that has attained a level of thermal maturity through burial or other heating mechanism such that oil and/or gas could be generated. These data generally are obtained by testing core or drill cuttings samples in a laboratory.
- Reservoir-quality rock: sandstone, limestone, or fractured rock having interconnected porosity and permeability into which oil and/or gas may migrate from the source rock and be trapped.

- Trapping mechanism that prevents oil and/or gas from migrating out of the reservoir-quality rock. Structural traps, stratigraphic traps, and faults are some common trapping mechanisms.
- Known deposits of oil and/or gas.

The Yuma Basin and the Tertiary Basins below were evaluated based on the above criteria.

1. Yuma Basin

According to Rauzi (2001), the hydrocarbon potential in the Yuma Basin is considered fair to good, especially in the deeper, sparsely tested southern parts of the basin and the completely untested eastern part of the basin beneath the BMGR. The latter, however, is currently withheld from leasing and exploration.

Butler (1995) defines the Altar-San Luis Basin Play as a hypothetical oil and non-associated gas play in the Basin and Range Physiographic Province of southwestern most Arizona (Yuma Desert). The play is defined by very significant onshore and offshore petroleum shows and possible discoveries in Cenozoic sand-shale sequences just to the south (of the planning area) in northwestern Sonora, Mexico.

The oil and gas level of potential is moderate (M) and the level of certainty is C. The locations with moderate potential hydrocarbon occurrence are in the Yuma Basin/Salton Trough. All other areas are interpreted as having low or no hydrocarbon potential.

2. Tertiary Basins (Mohawk and Harquahala)

The Mohawk Basin and the Harquahala Basin are Tertiary Basins identified by Rauzi (2001) that may be similar to productive Tertiary basins in Nevada. These contain strata that could include petroliferous limestone buried deeply beneath thick evaporate deposits. No exploratory holes have been drilled in either of these basins and the only indication of hydrocarbon potential is by analogy with productive similar geologic settings in Nevada. Therefore, the level of potential is low (L) and the level of certainty is A (uncertain), due to insufficient data.

C. CO_2 AND HELIUM POTENTIAL

CO_2/helium potential is allocated to areas that have the following characteristics:

- A source for CO_2/helium such as thick volcanic sequences that may have locally charged reservoir-quality sediments with CO_2. Volcanic rocks are prominent throughout the planning area but may not have the thickness and areal extent necessary to provide abundant CO_2 to reservoir-quality rocks.
- Reservoir-quality rock: sandstone, limestone, or fractured rock having interconnected porosity and permeability into which CO_2/helium may migrate from the source area and be trapped.
- Trapping mechanism that prevents CO_2/helium from migrating out of the reservoir-quality rock.

- Structural traps, stratigraphic traps, and faults are some common trapping mechanisms.
- Known production of CO_2/helium.

Areas having CO_2/helium potential are generally correlative with areas having oil and gas potential because those areas are known to have the necessary reservoir-quality rock and geologic structures. However, since there is no known production and no known shows of CO_2/helium in the planning area, and the extent of a volcanic source for CO_2/helium is uncertain, those areas have low potential (L). The level of certainty is B for those areas because no CO_2/helium has been reported.

D. LOCATABLE METALLIC MINERALS

There is moderate potential for metallic minerals immediately outside the mineral districts. Mineral occurrences are inferred in those areas because the geological environment for mineral occurrence in the mountains surrounding the mineral district is comparable to the known mineralized areas in the district. Moderate potential also is attributed to mountainous areas having rock types and geologic histories comparable to the established mineral districts. The level of certainty is B because available data provide indirect evidence that the metallic minerals occur in those districts.

E. LOCATABLE NON-METALLIC MINERALS

Areas with high potential for non-metallic mineral resources are in mineral districts with known occurrences of the non-metallic minerals. The Mineral Resources Data System identified only two non-metallic mineral locations on BLM-administered land within the planning area, although many other prospects are known to occur in the areas withdrawn from mineral entry (such as the YPG, etc.). The level of certainty is D (most certain) because available data provide direct evidence that the non-metallic minerals occur in these locations.

There is moderate potential for non-metallic minerals outside the mineral districts. Mineral occurrences are inferred in those areas because the geological environment for mineral occurrence in the mountains surrounding the mineral district is comparable to the known mineralized areas in the district. Moderate potential also is attributed to areas having rock types and geologic histories comparable to the recognized mineral districts. The level of certainty is B, because available data provide indirect evidence that the non-metallic minerals occur in those districts.

F. SALABLE MINERALS

1. Sand, Gravel, and Stone

Sand and gravel (aggregate) deposits, as well as decorative stone and stone for riprap, are being actively mined on or adjacent to BLM-administered land, particularly near Yuma. Two notable examples of aggregate mines are the Rinker Plant 801 and the BLT operations. These mines, as well as additional areas, have strong potential for near-term development, as the market for aggregate keeps pace with economic growth in the vicinity of Yuma. In addition to the Yuma

area mines, aggregate and riprap are mined near the Town of Quartzsite and Ehrenberg along the I-10 corridor in La Paz County.

The level of potential for the aggregate market is H (high potential), because the deposits are being actively mined and there are additional known resources of similar type and size in the surrounding area. The level of certainty is C, because available data (current mineral sales and direct observation of active mining) provides evidence to support the existence of the mineral resource.

3.13 RECREATION

The resources of the BLM-administered lands in the planning area provide a wide range of recreational opportunities that significantly contribute to the quality of life and eco-tourism industry in the region. Camping, hiking, OHV riding, boating, swimming, fishing, hunting, shooting, wildlife viewing, photography, mountain biking, horse back riding, cultural resource viewing, rock hounding, and geocaching are currently the most common recreational activities that take place within the planning area. Existing recreation sites are shown on Map 3-24 and Table 3-18.

Table 3-18
YFO Recreation Site Descriptions

Recreation Site Descriptions	Fee	Restrooms	Trash Collection	Volunteer Host	Dump Station	Water	Telephone	Boat Launch
Long Term Visitor Area								
Imperial Dam	X	X	X	X	X	X	X	
La Posa	X	X	X	X	X	X	X	
14-day Camping Area								
A-10 Backwaters								X
Dome Rock				X				
Ehrenberg Sandbowl Open OHV Management Area	X	X	X					
Fortuna Pond								
Hi Jolly				X				
Oxbow Recreation and Wildlife Area	X	X	X	X				X
Plomosa Road				X				
Road Runner				X				
Scaddan Wash				X				
Senator Wash North Shore Campground	X	X						
Senator Wash South Shore Campground	X			X				
Squaw Lake Campground and Boat Launch	X	X	X	X		X	X	X
VFW Highway 95				X				
10-day Camping Area								
Mittry Lake Wildlife Area								

Table 3-18
YFO Recreation Site Descriptions (cont.)

Recreation Site Descriptions	Fee	Restrooms	Trash Collection	Volunteer Host	Dump Station	Water	Telephone	Boat Launch
Day Use Only								
A-7 Backwater Day Use Area								X
Betty's Kitchen National Recreation Trail and Watchable Wildlife Viewing Area	X	X	X					
Bill Kerekes Boat Launch and Day Use Area		X	X					X
Laguna Dam Primitive Boat Launch								X
Senator Wash Boat Launch and Day Use Area	X	X	X	X			X	X
Concession								
Hidden Shores RV Village	X	X	X			X	X	X
Walters Camp	X	X	X			X	X	X

Three distinct groups of visitors recreate on BLM-administered lands within the planning area: (1) winter visitors who migrate to Arizona from the northern states from October to March; these visitors are generally retirees who camp in self-contained RV units, (2) families and groups from metropolitan centers in southern California and Phoenix; these visitors primarily come for water-based recreation activities on the lower Colorado River from May to September, and (3) local residents who regularly visit the public lands on weekday evenings and weekends; these visitors primarily come for hunting, fishing, camping, and trail-based recreation activities (USDOI BLM 1987b).

Visitor use patterns within the planning area are mainly seasonal. During the summer months, water-based weekend recreation on the Colorado River is the most common activity, and very few visitors recreate in the upland desert ecosystems for a significant period of time due to extreme summer heat. However, a considerable amount of OHV use occurs on lands adjacent to the river during the summer months. During the winter months, the river is relatively quiet and most recreation occurs within the upland desert ecosystems as visitors participate in camping, cultural resource viewing, hunting, rock hounding, and a wide variety of trail-based activities due to the favorable weather in this region.

Recreation management in the planning area comprises the following components: the Recreation Fee Programs, Recreation Concession Leases, Free Recreation Opportunities, and ROS. For additional information regarding routes (trails, roads, and driveable washes), see Section 3.14 Travel Management.

3.13.1 RECREATION FEE PROGRAMS

The BLM is authorized to collect two types of recreation-related revenues from the public, SRP fees and amenity recreation fees. Changes in the costs of fees and the locations where fees are collected are based on publicly reviewed YFO Recreation and Visitor Services Business Plans.

These plans are also reviewed by the Arizona Resource Advisory Council. The BLM is permitted to retain 100 percent of the collected recreation fees, and use them for the operation, maintenance, and improvement of recreation fee collection sites.

A. SPECIAL RECREATION PERMIT PROGRAM

The YFO SRP program manages use of the public lands for commercial activities, organized group events, and individual use of special areas by the discretionary issuance of permits. The BLM SRP program also includes permitting competitive uses on the public lands; however, the public has not approached the YFO to permit such a use in several years. SRPs are issued with stipulations YFO specialists have determined appropriate to mitigate the potential impacts these uses may have on the other resources included in the BLM's multiple-use mission. Revenues generated from SRPs for commercial activities and organized group events are used to cover the costs to the Recreation and Visitor Services program for administrative and regulatory compliance documentation procedures necessary prior to authorization. Revenues generated from SRPs for individual use of special areas are used to cover standard operational costs and address identified capital improvement needs.

1. Commercial Activities

The BLM considers any activity on the public lands where a person, group, or organization attempts to make a profit, receive money, or where there is paid public advertising to seek participation a commercial activity. Commercial operators are required to pay a $90.00 annual fee and provide proof of insurance prior to conducting business on the public lands. Commonly permitted commercial activities within the YFO include RV supplies, services, and repairs and food concessionaires at popular river recreation areas.

2. Organized Group Events

The BLM issues SRPs for any activities on the public lands that are part of a structured, ordered, consolidated, or scheduled event for recreational purposes. If the purpose of an event is to generate revenue, then the YFO would issue a SRP for commercial activities on the public lands. In most cases, organized group events enable community groups to recreate together on their public lands and are not commercial in nature. Commonly permitted organized group events within the YFO include horseback rides for local equestrian clubs and Boy Scout campouts.

3. Individual Use of Special Areas

The BLM LTVA program was established in the YFO in 1983 to fulfill the needs of winter visitors and to protect local desert ecosystems from degradation due to intensive use. The YFO's two LTVAs are special areas established for management by the SRP program. Although many services and facilities are located in these areas, they primarily provide for resource protection, visitor safety, and regulatory compliance measures. The areas are not BLM campgrounds nor designed as developed recreation facilities.

SRPs purchased for the use of the LTVAs are honored throughout the BLM's LTVA program for the length of the permit's validity. The BLM El Centro and Palm Springs/South Coast Field Offices also maintain LTVAs. Between April 16 and September 14, the LTVAs become 14-day

camping areas. One contact station at each of the YFO's two LTVAs remains open year round to provide the public with information and assistance.

a. Imperial Dam LTVA

The 3,300-acre Imperial Dam LTVA is situated approximately 21 miles north of Yuma in Imperial County, California. The LTVA is located adjacent to the Senator Wash Reservoir. The Imperial Dam LTVA provides two universally accessible rest rooms, a water distribution site, a three-lane dump station with water, a dry dump station, a grey water dump site, trash disposal services, shade ramadas, three full hook-up sites for volunteer hosts and contractors, post and cable fencing, extensive signage, numerous unpaved roads, and pay phones. The increasing use of the LTVA creates a heavy demand on the existing facilities. The waste treatment facilities that serve this general area need to be upgraded to address environmental concerns and for legally mandated regulatory compliance.

b. La Posa LTVA

The 10,700-acre La Posa LTVA is located approximately two miles south of the Town of Quartzsite in La Paz County, Arizona. Facilities at the La Posa LTVA include a well water system, a water distribution site, a two-lane dump station with leach fields, a dry dump station, trash receptacles, 10 vault toilets, approximately three miles of post and cable fencing, shade ramadas, a concrete dance floor, and extensive signage. Other improvements include four block contact stations with power, four electrical hook-up sites for hosts, several pay phones, business phones located within each contact station, one major paved road, and numerous improved and unimproved roads which require routine maintenance.

B. AMENITY RECREATION FEE PROGRAM

The FLREA, P.L. 108-447, authorizes the BLM to collect amenity recreation fees for the use of recreation areas that meet specified levels of development and facilities. If permitted, overnight camping at amenity recreation fee sites within the YFO are limited to 14 days within any 28-day period. The YFO collects amenity recreation fees at the seven following recreation areas:

1. Senator Wash Boat Ramp Day Use Area

The Senator Wash Boat Ramp Day Use Area provides the public with recreational access to Senator Wash Reservoir, located approximately 25 miles north of Yuma. The area offers the public with day use parking, a paved boat launch, a restroom with flush toilets and showers, garbage collection, pay phones, and a buoyed swimming area. Picnicking, swimming, fishing, boating, jet and water skiing, and wildlife viewing are the most common activities within the reservoir. The boat ramp also provides boat-in camping access to the Senator Wash North Shore and South Shore Campgrounds (USDOI BLM 2007a). Water levels within Senator Wash are controlled by Reclamation as part of the water control and delivery system of the lower Colorado River.

2. Senator Wash North Shore Campground

The winding northern shoreline along Senator Wash Reservoir provides access to several private campsites. The campground can be accessed by land from Ferguson Lake Road or by water from the Senator Wash Boat Ramp. Five universally accessible vault restrooms are maintained in the

campground. OHV use is also a common recreational activity on the public lands adjacent to the campground. The amenity recreation fee at North Shore also includes the use of the trash disposal facilities at the nearby Imperial Dam LTVA (USDOI BLM 2007a).

3. Senator Wash South Shore Campground

The wide, flat beach along Senator Wash Reservoir's southern shore provides ideal family camping opportunities. The campground can be accessed by land from the adjacent Imperial Dam LTVA or by water from the Senator Wash Boat Ramp. The amenity recreation fee at South Shore also includes the use of the trash disposal and restroom facilities within the LTVA (USDOI BLM 2007a).

4. Squaw Lake Campground and Day Use Area

The Squaw Lake Campground and Day Use Area is located on the southern side of Senator Wash Dam, and provides camping opportunities and boating access to the lower Colorado River. The area includes over 100 RV campsites and numerous areas for tent camping, four universally accessible restrooms with flush toilets, garbage collection, picnic areas with grills, two boat launches, boat trailer parking, two buoyed swimming areas, and pay phones. Hot water showers are also available within the restrooms for an additional fee. The most common recreational activities at Squaw Lake include camping, hiking, swimming, fishing, boating, and picnicking. A no wake zone encompasses Squaw Lake until it reaches the Colorado River (USDOI BLM 2007a).

5. Betty's Kitchen Watchable Wildlife Viewing Area and National Recreation Trail

This 10-acre day use area is located along the lower Colorado River approximately 15 miles north of Yuma. The area is situated just upstream of the Reclamation-operated Laguna Dam, which was the first dam on the Colorado River. Betty's Kitchen maintains dense assemblages of riparian vegetation, and past restoration projects have increased the vegetative diversity. The universally accessible trail was designated a NRT in 1993, and interpretive panels along the walk familiarize the visitor with the natural and cultural features of the area. Facilities at Betty's Kitchen include a day use parking area, shade ramada, picnic tables, grills, and a small outdoor classroom. Fishing, hiking, and wildlife viewing are the most common recreational activities (USDOI BLM 2007a).

6. Oxbow Recreation and Wildlife Area

The 420 acre Oxbow Recreation and Wildlife Area is located approximately 25 miles south of Blythe, California along the lower Colorado River and Oxbow Lake, an abandoned meander of the original river channel. The area was formally designated in 2005 with the finalization of the BLM's Oxbow Recreation and Wildlife Area Management Plan. The plan has earmarked approximately 150 acres for campground and day use development to meet the growing recreational demands along this stretch of the Colorado River. The other 270 acres of the area have been identified for a variety of riparian habitat restoration projects. The facilities at Oxbow include RV and tent campsites, two universally accessible vault restrooms, garbage collection, grills, picnic tables, one paved and one unpaved boat launch, and boat trailer parking. Camping, boating, fishing, and wildlife viewing are the most common recreational activities. Jet skiing, water skiing, and other fast paced boating activities occur within the Colorado River. Slower

paced boating activities, such as fishing, kayaking, and canoeing are more common within Oxbow Lake.

7. Ehrenberg Sandbowl Open OHV Management Area

Located approximately three miles south of Ehrenberg, Arizona, this 400 acre designated Open OHV Management Area provides exceptional OHV riding opportunities throughout its hilly and sandy terrain. The entrance to the Sandbowl area provides day use parking, a universally accessible vault restroom, OHV loading/unloading ramps, two shade ramadas, and picnic tables (USDOI BLM 2007a).

3.13.2 RECREATION CONCESSION LEASES

The BLM currently administers two recreation concession leases along the lower Colorado River. Concessions are generally authorized so that private enterprises can provide the public with a wider range of recreational opportunities that the BLM is not capable of managing. The maximum length of stay within concessions is limited to 150 days per year. Recreation concession leases within the planning area are authorized by FLPMA.

A. HIDDEN SHORES RV VILLAGE

Hidden Shores RV Village is located on the eastern side of Imperial Dam in Yuma County, Arizona. Managed by the private sector, Hidden Shores RV Village primarily caters to visitors interested in water-based recreation activities on the lower Colorado River. Amenities provided by Hidden Shores RV Village include water and electric RV hookups, boat ramps, universally accessible showers and restrooms, carry-out and fuel sales, recreation center, golf course, and laundry facilities. Hidden Shores RV Village visitors also commonly ride OHVs on the BLM-administered lands adjacent to the concession.

B. WALTERS CAMP

Walters Camp is located on the original Colorado River channel between the Cibola and Imperial NWRs in Imperial County, California. The 18-acre concession provides a boat ramp, carry-out, RV hookups, flush restrooms and showers, fuel sales, and tent camping sites.

3.13.3 OTHER RECREATION OPPORTUNITIES

A vast majority of the recreational opportunities within the planning area are available to the public for no cost. Several areas throughout the planning area have historically received high amounts of recreational use. Most of these free areas provide no type of recreational facilities, and visitors are expected to pack out what they pack in.

The YFO continuously monitors visitor use patterns and resource degradation in free 14-day campgrounds and other sites of high public use identified on Map 3-24. Monitoring data is used to determine if the installation of recreation facilities, such as restrooms, trash receptacles, and designated parking areas, are needed to address any existing public health and safety and

resource protection concerns. If recreation facilities are needed to address these types of concerns, the YFO would then consider if the area should be included in the BLM recreation fee program to cover the cost of facility maintenance. Potential changes in the recreation fee program are contingent upon the outcome of publicly reviewed NEPA documents and the YFO Recreation and Visitor Services Business Plan.

A. 14-DAY CAMPING AREAS

Outside of recreation fee areas, designated day use only areas, and other areas closed to overnight camping, visitors may camp on the public lands free of charge for 14 days within any 28-day period, after which they must move to another location at least 25 miles away. There are several areas throughout the planning area that have historically received high amounts of winter visitor camping use and have been designated as free 14-day camping areas. No recreational facilities are provided within designated 14-day camping areas. BLM Volunteer Hosts are normally stationed within these areas during the winter visitor season to ensure that visitors comply with BLM camping regulations.

1. A-10 Backwaters

The A-10 Backwaters are located between Colorado River Miles 113.7 and 115.1 in La Paz County, Arizona just south of Ehrenberg. The backwaters provide camping, kayaking, and on-shore fishing opportunities. The site does not provide a maintained boat launch, however, limited backwater boating access is available through the site's gradual slopes into the water.

2. Fortuna Pond

Fortuna Pond is located in Yuma County, Arizona, approximately one mile north of Highway 95 and three miles east of Avenue 7E. Fortuna Pond is cooperatively managed with the AGFD and Reclamation, who stock the pond with fish and control the pond's water level, respectively. Further information on Fortuna Pond can be found in the Coordinated Management Area sections of this document.

3. Quartzsite 14-day Camping Areas

The 1997 La Posa Interdisciplinary Management Plan designated five 14-day camping areas on the public lands surrounding the Town of Quartzsite, Arizona. The Dome Rock, Road Runner, Hi Jolly, Plomosa Road, and Scaddan Wash camping areas collectively provide over 5,500 acres of free overnight camping opportunities in the area. Due to the large numbers of winter visitors who annually visit the Town of Quartzsite, approximately 106,000 acres of public land outside of the La Posa LTVA and the 14-day camping areas have been closed to overnight camping for resource protection purposes.

4. VFW Highway 95 Camping Area

This 14-day camping area is located approximately 13 miles northeast of Yuma, directly adjacent to both Highway 95 and the Veterans of Foreign War (VFW) post. The flat topography of the area is conducive to RV camping, and the camping area's proximity to both Highway 95 and the VFW make it particularly popular with winter visitors.

B. 10-DAY CAMPING AREA

The Mittry Lake Wildlife Area includes over 600 acres of surface water and over 2,400 acres of marsh and upland habitat. Camping regulations within this area are unique to the planning area, in that overnight camping is limited to 10 days per calendar year for wildlife protection purposes. While much of the land is available for camping, overnight use is normally concentrated along the fishing jetties located on the lake's southwestern shore, and along the Gila Gravity Main Canal to the south. The Mittry Lake Wildlife Area is cooperatively managed with the AGFD and Reclamation, and further information on these lands can be found in Section 3.17 Coordinated Management Areas.

C. DAY USE ONLY AREAS

There are several heavily used free areas where the YFO has prohibited overnight camping. These free day use only areas are presented below.

1. A-7 Backwater

The A-7 Backwaters are located between Colorado River Miles 118.7 and 120.6 in La Paz County, Arizona just south of Ehrenberg. The BLM designated approximately 200 acres of land surrounding the waters as day use only in 1989 to reduce potential impacts to riparian vegetation and wildlife. The site is accessed from the Ehrenberg-Cibola Levee Road, and provides backwater and river boating access through an unpaved boat launch.

2. Bill Kerekes Day Use Area and Boat Launch

The Bill Kerekes Day Use Area and Boat Launch are located within the Mittry Lake Wildlife Area in Yuma County, Arizona. This area provides the public with a paved boat launch, designated boat trailer parking, restrooms, barbeque grills, and a universally accessible fishing dock and shade ramada. These facilities, which are available for public use free of charge, have been installed through substantial donations from local community residents and are cooperatively managed with the AGFD.

3. Laguna Dam Primitive Boat Launch

Located approximately 15 miles north of Yuma, this unpaved launch provides boating access to the original Colorado River channel just upstream from Laguna Dam. The site is popular with local fishermen and provides limited boat trailer parking with no developed facilities.

D. OTHER FREE RECREATION OPPORTUNITIES

There is no cost associated with a wide variety of recreational trail use opportunities, such as hiking, mountain biking, horseback riding, and OHV riding on BLM-administered lands in the planning area. The YFO also does not collect fees for other dispersed recreation activities, such as rock hounding, geocaching, and cultural resource viewing.

Hunting and fishing permits within the planning area are regulated by the AGFD and the CDFG, accordingly. The BLM does not generally charge fees associated with hunting and fishing on the

public lands, unless the visitors are using commercial guides for these activities.

3.13.4 RECREATION OPPORTUNITY SPECTRUM INVENTORY

The purpose of the ROS Inventory is to catalog the different types of recreation opportunities currently available within the planning area, and categorize them into six types of ROS Classes ranging from Urban to Primitive. A YFO-specific ROS Inventory was completed in 2005 through a multi-agency, interdisciplinary team process. ROS Inventory Classes were based on professional determinations of nine different physical, social, and administrative attributes of the public lands. The results of the ROS Inventory are shown on Map 3-25. The ROS Inventory also provides the basis for the prescribed recreation settings proposed in Chapter 2. The six types of ROS Classes are defined as follows:

A. URBAN RECREATION SETTING

The urban recreation setting provides very limited opportunities to see, hear, and smell the natural resources because of the extensive level of development, human activity, and natural resource modification. Watching and meeting other visitors is expected and desired; large group activities are popular; opportunity to briefly relieve stress and to alter everyday routines is important; socializing with family and friends is important; large groups and families are common; a high sense of safety, security, comfort, and convenience is central and dominant; the mix of recreation activities may be diverse, ranging from those of relaxation and contemplation to those of physical exertion, thrills, excitement and challenge. The setting is often attractive to short-term visitors, tours, and school groups; it may serve as a staging area for visitors traveling on to areas with non-urban recreation settings.

B. SUBURBAN RECREATION SETTING

The suburban recreation setting provides limited or little opportunity to see, hear, or smell the natural resources because of the widespread and very prevalent level of development, human activity, or natural resource modification; watching and meeting other visitors is expected and desired; opportunity to briefly relieve stress and to alter everyday routine is important; families are common; a high sense of safety, security, comfort, and convenience is central and dominant; the mix of recreation activities may be diverse, ranging from relaxation and contemplation to physical exertion, thrills, excitement, and challenge; learning about the natural and cultural history of the area is important to some; area is popular with local residents or long-term winter visitors.

C. RURAL DEVELOPED RECREATION SETTING

The rural developed recreation setting provides occasional or periodic opportunities to see, hear, or smell the natural resources because of the common and frequent level of development, human activity, or natural resource modification; opportunity to experience brief periods of solitude and change from everyday sights and sounds is important; socialization within and outside one's

group is typical and the presence of other visitors is expected; opportunity to relieve stress and to alter everyday routines is important; a moderate level of comfort and convenience is important; a sense of safety and security is important; the array of recreation activities may be diverse, ranging from relaxation and contemplation to physical exertion and challenge; area is typically attractive for day-use and weekend visits from regional metropolitan areas and smaller nearby communities.

D. RURAL NATURAL RECREATION SETTING

The rural natural recreation setting provides prevalent opportunities to see, hear, or smell the natural resources because development, human activity, and natural resource modifications are occasional and infrequent; socialization with others is expected and tolerated; opportunity to relieve stress and to get away from built environment is important; a high sense of safety, security, comfort and convenience is not important nor expected; a sense of independence and freedom with a moderate level of management presence is important; moments of solitude, tranquility, and nature appreciation are important; experiences tend to be more resource-dependent, although may be diverse, ranging from relaxation and contemplation to socialization, to physical exertion and challenge; area is typically attractive to extended weekend visitors using recreation vehicles, tents, or rustic cabins.

E. SEMI-PRIMITIVE RECREATION SETTING

The semi-primitive recreation setting provides widespread and very prevalent opportunities to see, hear, or smell the natural resources because development, human activity, and natural resource modifications are seldom encountered; opportunity to experience a natural ecosystem with little human imprint is important; a sense of challenge, adventure, risk, and self-reliance is important; solitude and lack of contact with other visitors, managers, and facilities is important; the recreation experiences tend to be more resource-based; a sense of independence, freedom, tranquility, relaxation, nature appreciation and wonderment, testing skills, and stewardship is typical; area provides opportunities for the more adventure-based enthusiasts. Overnight visits are typically car and tent camping far from modern conveniences and facilities. Knowledge of desert survival skills is critical to visitor safety. Topography, an absence of existing roads, or resource protection measures may limit motorized access.

F. PRIMITIVE RECREATION SETTING

The primitive recreation setting provides extensive opportunities to see, hear, or smell the natural resources because development, human activity, and natural resource modifications are rare; opportunity to experience natural ecosystems with very little and no apparent human imprint is paramount; natural views, sounds, and smells dominate; a sense of solitude, tranquility, challenge, adventure, risk, orienteering, and self-reliance is important; a sense of freedom, tranquility, humility, relaxation, nature appreciation, wonderment, and stewardship is central and dominant; overnight visitors tent camp with no modern facilities; adventure travelers are often attracted to the undisturbed wild settings.

3.14 TRAVEL MANAGEMENT

BLM-administered lands are adjacent to several rapidly growing communities within the planning area. As the demand for multiple-resource uses continues to grow, the YFO is challenged to provide a comprehensive transportation system that meets user needs and remains sustainable with the resource base.

3.14.1 ROADS

Roads within the planning area provide essential access to private property, mining activities, agricultural fields, and recreational opportunities. These roads can be broadly categorized into two types, primary transportation routes and recreational routes.

A. PRIMARY TRANSPORTATION ROUTES

Components of the National Highway System pass through the planning area. Interstate 10 and Interstate 8 both cross in an east–west direction, and Highway 95 runs north–south. Various other Arizona and California State highways and county roads provide a comprehensive transportation system linking the communities within the planning area. The YFO also authorizes the construction and maintenance of roads across BLM lands by issuing ROWs. ROWs are typically issued when roads are needed to provide access to private property, mining and mineral materials activities, and utilities.

B. RECREATIONAL ROUTES

The recreational routes on BLM-administered lands are primarily low-standard, unpaved roads. The conditions of recreational routes are dependent upon the levels of use, weathering, susceptibility of erosion, and age. The YFO does not actively maintain a vast majority of these routes, and public use normally requires the use of high clearance and/or four-wheel drive vehicles. The YFO maintains many of the routes which provide access into the recreation fee areas. These routes are maintained with improved surfaces that can withstand the heavier amounts of vehicle traffic. The BLM inventories route maintenance needs in a database called the Facility Assessment Management System.

The YFO has used a variety of data sources to compile the inventory of recreational routes on BLM-administered lands within the planning area. The Proposed Route Inventory includes approximately 4,600 miles of recreational routes (including drivable washes) and linear features miles, and is represented on Map 3-26. A closer examination of these routes and linear features miles can be found in large format on Maps TMA-1, TMA-2, TMA-3, TMA-4, and TMA-5.

3.14.2 OHV MANAGEMENT AREA DESIGNATIONS

The CFR and the BLM *Land Use Planning Handbook* require that all BLM-administered lands within the planning area are designated as Open, Closed, or Limited to OHV use. The existing designations for OHV use are described below (see Map 2-9c).

A. OPEN OHV MANAGEMENT AREAS

Visitors may operate any type of motorized vehicles at all times, anywhere within Open OHV Management Areas. The YFO currently maintains one Open OHV Management Area at the Ehrenberg Sandbowl, which is approximately 400 acres.

B. CLOSED OHV MANAGEMENT AREAS

Motorized vehicle travel is prohibited within Closed OHV Management Areas. Only the YFO Field Manager can authorize motorized travel within these designated areas for administrative and emergency purposes. The YFO currently maintains approximately 169,000 acres of Closed OHV Management Areas, 167,800 acres of which are statutorily closed through their designation as Wilderness. Approximately 1,000 acres in the La Paz Valley near the Town of Quartzsite and 100 acres east of Yuma (Fortuna Wash) have been closed to motorized travel for several years to reduce impacts from OHV use to adjacent community residents. In addition, 100 acres have been temporarily closed to OHV use in the North Bank Milipitas Wash area (see additional information below in Section 3.14.3 A.3).

C. LIMITED OHV MANAGEMENT AREAS

Motorized travel is currently limited to existing roads, trails, and drivable washes within approximately 1,148,600 acres of BLM-administered lands within the planning area.

3.14.3 PUBLIC ACCESS

Public access within the planning area is managed by the BLM, Federal, other State, Tribal agencies, and private property owners.

A. BLM ADMINISTRATIVE RESTRICTIONS

The BLM has placed administrative restrictions for public health and safety and resource protection purposes, which limit the type of public access and uses allowed on specific public lands.

1. Fortuna Pond Restriction

The YFO has prohibited overnight camping and parking within a 50-foot wide zone along the southern shore of Fortuna Pond in Yuma County, Arizona. These restrictions were implemented to reduce shoreline erosion and impacts to riparian vegetation.

2. Quartzsite Area Restrictions

The 1997 La Posa Interdisciplinary Management Plan prohibited overnight camping and firewood collection within 115,200 acres of BLM-administered lands surrounding the Town of Quartzsite, Arizona. The overnight camping restriction was implemented in order to consolidate impacts from winter visitor camping use into the La Posa LTVA and five free 14-day

campgrounds. The firewood collection restriction was implemented because such use of the public lands was not sustainable when such large numbers of visitors were coming to the area each winter.

3. North Bank Milpitas Wash Restriction

The YFO has temporarily restricted OHV use within 100 acres of public land in Imperial County, California. This restriction was implemented so that the YFO can assess the resource values of these lands that were recently transferred to the BLM's jurisdiction from the Cibola NWR under P.L. 109-127. The OHV Management Area designation proposed in this RMP would supersede the restriction for this area.

B. PUBLIC ACCESS ON NON-BLM LANDS WITHIN THE PLANNING AREA

1. Military Lands

Two large military installations limit public access to a significant amount of land within the planning area. YPG restricts public access to main traveled roads, and the BMGR Air Force Range provides public access by permit only.

2. USFWS Lands

The USFWS manages public access within the planning area's three NWRs independent of BLM transportation management decisions. Motorized travel within the Imperial, Cibola, and Kofa NWRs are limited to designated roads and trails. BLM-administered lands in the planning area also provide access into the Cabeza Prieta NWR, which allows public access by permit only.

3. Reclamation Lands

The BLM co-manages Reclamation acquired and withdrawn lands along the lower Colorado River. Reclamation is responsible for managing public access on the river levee roads. Use of these levee roads is prohibited unless specifically designated as open to the public by Reclamation. Reclamation also manages public access within identified Security Zones surrounding the various dams on the lower Colorado River.

4. Arizona State Trust Lands

State Trust Lands are dispersed throughout the planning area. The Arizona State Land Department provides a State Land Recreational Permit for individuals or families or groups for visitors wishing to recreate on these lands. The permit is designed to allow use of State Trust Lands for non-consumptive and environmentally compatible recreational activities.

5. Tribal Lands

Public access into the Native American Tribal reservations within the planning area is managed by the individual tribes, which generally require a permit prior to entry for recreational purposes.

6. Private Property

The BLM does not authorize public access to private property for recreational purposes. Individuals seeking access to their private property may apply for a ROW grant to obtain legal access.

3.15 LANDS AND REALTY

3.15.1 LANDS AND REALTY MANAGEMENT

YFO maintains an active lands program that oversees ROW authorizations for major ROW Corridors connecting energy-rich states (Texas and New Mexico) through Arizona to California. The planning area has no lands and realty management responsibility over Tribal lands.

Land use designations are ROW Corridors and communication sites. Land use designations may overlap the same area. In such situations, potential conflicts between uses and desired resource conditions are resolved through management decisions or prescriptions.

Examples of land use authorizations include leases, permits, easements, and ROWs. Land use authorizations are evaluated by analyzing current and desired future resource conditions and designations on a case-by-case basis. Land for lease or patent according to the R&PP Act would be considered to meet the needs of local communities and government entities. All land use authorizations are discretionary actions and may be subject to rent and bonding as determined by BLM using sound business management principles in accordance with existing regulations.

Land tenure adjustments are discretionary and may involve surface and/or subsurface estates to obtain an optimum land ownership pattern. BLM would consider resolving split-estate issues where practicable. Public lands would be retained in Federal ownership, unless specifically identified for disposal in the RMP or by a subsequent amendment. Additional lands may be identified for disposal to accommodate such actions as land exchanges with the State, or special legislation that calls for the disposal of Federal lands, but would not be limited to these specific actions. Land to be considered for disposal and/or acquisition would be evaluated on a case-by-case basis according to appropriate laws and regulations. Public lands that are within priority wildlife habitat and special management areas, designated as Wilderness, or otherwise classified or withdrawn from disposal would be retained in Federal ownership (USDOI BLM 1987a). Lands would be considered for acquisition to meet BLM's mission. Lands may be acquired through purchase, donation, exchange, or eminent domain. The land exchange program both disposes and acquires lands and/or interests in lands.

3.15.2 LAND USE AUTHORIZATIONS

A. WITHDRAWAL

Federal agency withdrawals within the planning area include but are not limited to Reclamation, USFWS, Department of the Navy, Department of the Air Force, and Department of the Army (see Appendix 2-G for complete list).

In the 1992 *Yuma District RMP Amendment*, the La Posa LTVA was proposed to be withdrawn from entry under the mining laws for recreational purposes (long-term camping). Approximately 11,400 acres would be withdrawn. This proposed withdrawal has not been completed and would require congressional approval because it exceeds 5,000 acres.

The Gila River Cultural Area ACEC, known as Sears Point (3,600 acres), and all the Wilderness Areas (167,800 acres) have been withdrawn from the general land laws and entry under the mining laws (Map 2-12a).

B. LEASES/PERMITS/EASEMENTS

Under the 43 CFR 2900 regulations, the three primary types of authorizations are leases, permits, and easements. Leases are generally for longer term and substantial development, and can convey possessory interest. Permits are normally for a maximum of three years and involve minimal development. Easements are non-possessory, non-exclusive interest in lands and are rarely authorized.

Leases, permits, or easements may be offered on a competitive basis if a competitive basis exists. These types of authorizations may be offered on a negotiated non-competitive basis where determined by the authorized officer. In the planning area, the primary types of leases authorized are agricultural, residential, and concession.

1. Agricultural Leases

BLM authorizes agricultural uses under the authority of FLPMA on certain public lands within the planning area. Currently, all agricultural leases are along or near the Colorado River. On Reclamation withdrawn lands, the lease allows for termination, cancellation, or revocation of the lease if the lands are needed for the use by Reclamation for reclamation purposes.

2. Residential Leases

The existing residential leases were issued to resolve unauthorized occupancy on public land.

3. Concession Leases

Concession leases entail the investment of large amounts of capital which would be amortized over time. Proposals for concession leases are driven by recreational needs. For additional information on concession leases, see Section 3.13.3 Recreation Concession Leases.

4. R&PP Leases

BLM considers R&PP lease applications for community expansion proposals from government agencies or nonprofit corporations and associations for such uses as airports, parks, hospitals, government facilities, etc. Authorization of an R&PP lease requires development in accordance with the approved lease and plan of development. Upon completion of substantial development of existing R&PP leases, the lessee may apply for patent to the public lands. In cases where an R&PP application is for the purpose of solid waste disposal or for any other purpose that may include the disposal, placement, or release of any hazardous substance, such as shooting ranges and wastewater treatment facilities, the lands go directly to patent if approved. The primary types of permits authorized in the planning area are as follows:

5. Film/Still Photography Permit

Commercial filming activity on Federal lands requires authorization and collection of appropriate fees based on days of filming, size of film crew, and type of equipment. Film permits are not issued if there is a likelihood of resource damage.

6. Apiary Permit

An apiary permit is a bee colony use site primarily for assisting in the pollination of agricultural crops. An additional benefit is the production of honey. All apiary permits must be located at a safe distance from residential areas and within close proximity to water. All permittees must monitor for Africanized bees.

7. Mineral Material Processing Plant Permit

These permits are associated with mineral material contracts which only allow for the extraction of mineral materials. Contractors often need land adjacent to their contracts for the processing and storage of mineral material.

8. Easements

In accordance with 43 CFR 2900, easements may be issued if determined to be the appropriate authorization. No easements have been issued for access across public lands within the planning area.

C. RIGHTS-OF-WAY

User-initiated proposals or applications generate most of the present ROW activity. Inquiries and proposals are received from Federal, State and local governments, and from private individuals and companies interested in acquiring access across or locating facilities on public land. BLM considers proposals on a case-by-case basis and in accordance with decisions established in the existing RMP (USDOI BLM 1987a).

ROWs are evaluated on a case-by-case basis. Public lands would generally be available for ROWs subject to NEPA evaluation, except where specifically prohibited by law or regulation or in areas specifically identified for avoidance and/or exclusion to protect significant resource values.

1. Right-of-Way Corridors

There are four existing major ROW Corridors with one-mile widths in the current planning area boundaries (Map 2-13a), which are designed and located to facilitate linear ROWs (primarily natural gas pipelines and transmission lines). These ROW Corridors are:

- Interstate 10,
- El Paso Natural Gas,
- Palo Verde-Devers, and
- San Diego Gas & Electric Interconnection.

New major ROWs are located in designated corridors, unless an evaluation for the proposed project shows the location outside of the corridor is the most practicable alternative and/or causes the least impacts to the environment (USDOI BLM 1987a). All existing or proposed new corridors are required to be designated in the RMP or through an RMP amendment. ROW Corridor designations in the YFO need to meet the needs identified in the *Draft West-wide Energy Corridor Programmatic EIS* and be consistent with the 1992 *Western Utility Group's Western Regional Corridor Study*. Established corridors in the planning area are required to align with adjacent BLM field office corridors.

2. Communications Sites

Communications sites are generally limited by BLM to designated areas, usually mountain peaks, with existing facilities. Emphasis is placed on consolidating single facility sites into more efficient communications facilities through site management plans. There are 11 existing communications sites in the planning area, six designated (Airway Beacon, Big Maria, Cunningham, Mohawk, Stone Cabin, and Telegraph) and five undesignated (Block Rock Hill, Guadalupe, Palo Verde Gap, Qwest, and Salome) (Map 3-27). YFO does not currently have a designated high-power communications site.

3. Renewable Energy (Solar and Wind)

Federal energy resources in the planning area are currently managed by YFO according to existing RMPs and *Management Framework Plans*. Since the existing *Management Framework Plans* and RMPs were developed, numerous changes in the environment, regulations, and policies have occurred that require reconsideration of certain management decisions. The potential for renewable energy in the planning area is based on environmental, physical, and economic criteria, in conjunction with policy directives.

Renewable energy sources, such as solar and wind power, are evaluated and discussed in terms of the ROW authorization that may be obtained to construct collection facilities on public land. There is the associated recognition of ROW authorizations needed for transmission lines as part of renewable energy development.

a. Solar Energy

Currently, there are no existing solar energy authorizations in the planning area. A solar energy prospective area refers to a solar energy resource area characterized by the amount of

solar radiation collectable by the types of collectors used. The entire planning area is considered a solar energy resource area (USDOE 2001, 2003).

A recent report prepared by the USDOE (USDOE 2003), in cooperation with the BLM, identified the planning area as having a large total land area with a high-potential for concentrating solar power and/or photovoltaic sites. Solar energy is a renewable energy resource that has excellent potential for generating electricity in Yuma and La Paz counties. Installation of solar energy facilities on public lands requires a ROW grant. Commercial electric generating facilities must comply with BLM's planning, environmental, and current ROW application requirements. If sufficient interest is recognized for a specific area, then competitive bidding is required for a ROW. BLM's general policy is to facilitate environmentally responsible commercial development of solar energy projects on public lands and use solar energy systems on BLM facilities where feasible. Laws and regulations applicable to solar arrays on public lands in the planning area include, but are not limited to, FLPMA and 43 CFR 2800.

Some types of solar energy facilities would require relatively flat land with slopes not exceeding three percent to accommodate the solar collectors, access to available water, and proximity to electric transmission facilities. The area of land required would depend on the type of plant, but is about five acres per produced megawatt. It is anticipated that a commercial scale concentrating solar power facility may be in the range of 100 megawatt or larger and may require in excess of 500 acres.

The annual average solar insolation throughout the planning area is relatively uniform at 6,100 to 7,000 Wh/m2/day (Energy Atlas 2005). Commercial solar generating stations have been constructed and operated in Arizona and other states, particularly in desert locations. Existing solar array technology can place approximately 125 to 150 kilowatts of photovoltaic cells per acre. Such an array would generate 250 to 300 megawatt-hours of electricity per year (Arizona Public Service 2002).

b. Wind

Wind energy is a renewable energy resource that has excellent potential for generating electricity. The BLM Wind Energy Programmatic EIS (USDOI BLM 2005b) determined which areas have high, medium, or low potential for wind energy development based on the typical wind speed measured at a location or area. The wind power classification used in the EIS had seven wind classes based on the wind power density at a height of 50 meters, measured in watts per square meter (W/m^2) (Table 3-19). Wind power is considered economic for large turbines (commercial utilities-scale) at Class 3 and higher, although a small non-commercial turbine can be used at Class 1.

Currently, there are no commercial wind generating facilities operating in Arizona. Identified prospects are north of the planning area and in northeastern Arizona (AZCENTRAL 2005). No potential commercial developments have been identified for the planning area. Small non-commercial wind projects where the power is used locally may be located anywhere. Wind power is often used to pump water for farming or grazing.

Table 3-19
Wind Power Classification/Energy Development Potential

Wind Power Class	Energy Development Potential	Wind Power Density (W/m^2) at 164 ft (50 m) above Ground Level	Wind Speed* (mph) at 164 ft (50 m) above Ground Level
1	Poor	0–200	0.0–12.5
2	Marginal	200–300	12.5–14.3
3	Moderate	300–400	14.3–15.7
4	Good	400–500	15.7–16.8
5	Excellent	500–600	16.8–17.9
6	Excellent	600–800	17.9–19.7
7	Excellent	>800	>19.7

*Mean wind speed is estimated by assuming a sea level elevation and a Weibull distribution of wind speeds with a shape factor (k) of 2.0. The actual mean wind speed may differ from the estimated values shown here by as much as 20%, depending on the actual wind speed distribution (or Weibull k value) and elevation above sea level.

There are four small areas of high potential for wind energy development in the planning area:

- Dome Rock Mountains southwest of the Town of Quartzsite just north of YPG,
- Red Cloud Mine area between the Trigo Mountains Wilderness Area and YPG,
- Telegraph Pass in the Gila Mountains east of Yuma, and
- Little Horn Mountains in northeastern Yuma County.

These areas are surrounded by slightly larger areas of medium potential for wind energy development. In addition, there are numerous isolated spots of medium potential for development along Highway 95 from Yuma to the northern border of the planning area and near the paths of the east-west high voltage transmission lines.

A wind energy prospective area refers to a wind energy resource area as characterized by the wind power energy resource levels described above. Areas of medium or high potential are considered usable for generating wind power with large turbines (USDOI BLM 2005b). Based on the non-industrial use of small turbines to generate electricity, the entire planning area is considered a wind resource area. Based on the industrial use of large turbines to generate electricity, there are two wind energy resource areas in the planning area close to existing transmission lines:

- Dome Rock Mountains southwest of the Town of Quartzsite just north of YPG, and
- Telegraph Pass in the Gila Mountains east of Yuma.

Laws and regulations applicable to wind farms on public lands in the planning area include FLPMA and 43 CFR 2800. Wind energy site testing, monitoring, and development on BLM-administered public land is authorized by application for a ROW authorization at the appropriate BLM Field Office. If sufficient interest is recognized for a specific area, then competitive bidding may be required for a ROW authorization. At this time, there are no monitoring sites, commercial operations, or permitting activity authorized in the planning area.

D. TRESPASS

The primary type of trespass within the planning area is illegal dumping. Other types of trespass present are activities which could potentially be approved by land use authorizations (e.g., roads, utility lines, agricultural). Trespass resolution includes, but is not limited to, termination, issuance of the appropriate authorization for the unauthorized activity, or litigation. There are several pending trespass cases and resolution would be subject to availability of resources, including personnel and funding. Trespass cases are resolved in accordance with BLM's laws, regulations, and policies.

3.15.3 LAND TENURE

A. CLASSIFICATION

All public lands within the planning area were classified under the Taylor Grazing Act and continue to be classified unless reclassified for specific purposes including but not limited to R&PP lease/patent and FLPMA Sec. 203 sales.B. DisposalAll land disposal actions are discretionary with emphasis on serving the public interest. Disposal of Reclamation-withdrawn/acquired lands requires Reclamation approval. Sales are currently considered more efficient. Sales are primarily competitive or modified-competitive. Disposal of lands are made on a case-by-case basis and are accomplished by the most appropriate disposal authority (Map 2-13a). Approximately 3,300 acres have been disposed of through actions implemented under the existing RMP.

BLM policy is to not dispose of lands occupied by listed or proposed threatened or endangered species. When public uses outweigh the value of a parcel as federally owned threatened or endangered species habitat, disposal is considered on a case-by-case basis. In this instance, consultation or conferencing with USFWS under Section 7 of the ESA is required. Exchange for other parcels of habitat is encouraged. Compensation for loss of habitat value is required where a compensation policy exists. Their mitigation measures may also be required (USDOI BLM 1987a).

BLM determines the presence or absence of lands available for Desert Land Entries in the planning area, including Native American allotments. There are none present at this time, although requests have been received from individuals to establish them. They are generally not viable because of lack of adequate water sources.

C. ACQUISITION

Land acquisitions are considered on a case-by-case basis through exchange, purchase, donation, or eminent domain (USDOI BLM 1996a). Acquisition of easements, for purposes such as access or conservation, is also considered on a case-by-case basis. Since implementation of the current RMP, the YFO has acquired approximately 15,600 acres consisting of approximately 4,100 acres of subsurface estate only and 11,500 acres of both surface and subsurface estate. Decisions to acquire lands would be based on public benefits, management considerations, and public access

needs. Specific actions to implement RMP land acquisition decisions consider public participation as deemed necessary. Acquisition of in-holdings from willing sellers within ACECs and Wilderness has been a priority. Currently, there are pending acquisition projects using Land and Water Conservation Funds within the Gila River Cultural Area ACEC.

D. EXCHANGE

Land exchanges include both the disposal of public lands and acquisition of non-Federal lands. Exchange is the preferred method of land tenure adjustment. The Federal and non-Federal lands involved in an exchange must be of equal value or an equalization payment of not more than 25 percent may be required.

3.16 SPECIAL DESIGNATIONS

Existing special designations within the planning area include one NRT and eight congressionally designated Wilderness Areas, two ACECs, and one NHT. Other BLM-supported special designations which currently do not exist within the planning area include Wilderness Study Areas, National Scenic Byways, National Back Country Byways, National Scenic Trails, and Wild and Scenic Rivers (Map 2-1a).

3.16.1 NATIONAL LANDSCAPE CONSERVATION SYSTEM

In June 2000, the BLM responded to growing concern over the loss of open space by creating the NLCS. The NLCS brings into a single system some of the BLM's premier designations. By putting these lands into an organized system, the BLM hopes to increase public awareness of these areas' scientific, cultural, educational, ecological, and other values. Inclusion in the NLCS does not create any new legal protections for these lands, but it does provide field offices with overall guidance and direction for management of the system. Components of the NLCS include National Conservation Areas, National Monuments, Wilderness Areas, Wilderness Study Areas, Wild and Scenic Rivers, and National Historic and Scenic Trails. Wilderness Areas and a National Historic Trail are the only components of the NLCS present within the YFO planning area.

A. WILDERNESS

The BLM manages four Wilderness Areas in Arizona, and portions of four Wilderness Areas in California (Table 3-20). Wilderness is designated by Congress and is managed according to the Wilderness Act of 1964, the Arizona Desert Wilderness Act of 1990, the California Desert Protection Act of 1994, regulations for wilderness management at 43 CFR 6300, BLM *Manuals* 8560 and 8561, BLM *Handbook* H-8560-1, and Wilderness management plans.

Management plans have been written for Wilderness within Arizona; these are the Eagletail Mountains, Muggins Mountains, and New Water Mountains (jointly developed with Kofa

NWR). Decisions are currently being implemented in the three Wilderness Areas with finalized management plans. Management plans have not yet been completed for the Trigo Mountains Wilderness or the four California Wilderness Areas, which are currently managed according to 43 CFR 6300, BLM *Manual* 8560, BLM *Handbook* H-8560-1, and other applicable guidance. For the four California Wildernesses, management plans will be developed in coordination with the BLM California Desert District.

Table 3-20
Wilderness Areas Managed by YFO in the Planning Area

Wilderness Area	YFO Managed Acres	Total Wilderness Acres
Arizona		
Eagletail Mountains	98,600	98,600
Muggins Mountains	7,700	7,700
New Water Mountains	24,700	24,700
Trigo Mountains	30,400	30,400
California		
Big Maria Mountains	1,600	47,600
Little Picacho	2,900	33,600
Palo Verde Mountains	800	32,300
Riverside Mountains	1,100	22,400
Total Wilderness	167,800	295,300

1. Eagletail Mountains Wilderness

The Eagletail Mountains Wilderness is about 65 miles west of Phoenix in Maricopa, Yuma, and La Paz counties and is 98,600 acres. The Wilderness includes 15 miles of the Eagletail Mountains ridgeline and Courthouse Rock to the north, Cemetery Ridge to the south, and a large desert plain area between the two ridgelines. Several different rock strata are visible in most places, with natural arches, high spires, monoliths, jagged sawtooth ridges, and numerous washes six to eight miles long. Recreation such as extended horseback riding and backpacking trips, sightseeing, photography, rock climbing, and day hiking are enhanced by the topographic diversity, scenic character, size, as well as the botanical, wildlife, and cultural values of the area. This Wilderness is managed according to the 1995 Eagletail Mountains Wilderness Management Plan.

2. Muggins Mountains Wilderness

The Muggins Mountains Wilderness is located approximately 25 miles east of Yuma and is 7,700 acres. The Wilderness includes a cluster of rugged peaks at the western end of the Muggins Mountains, the most prominent being Muggins Peak, Klothos Temple, and Long Mountain. Twin Tanks Wash, Long Mountain Wash, Morgan Wash, and other deeply cut drainages dissect the peaks. The rugged landform and colorful geologic strata of the Muggins Mountains are considered exceptionally scenic for the region. Recreation such as backpacking, day hiking, sightseeing, photography, and rock climbing are enhanced by the topography and scenic character, as well as botanical, wildlife, and cultural values. This Wilderness is managed according to the 1994 Muggins Mountains Wilderness Management Plan.

3. New Water Mountains Wilderness

The rugged New Water Mountains Wilderness, 24,700 acres, is 10 miles east of the Town of Quartzsite, Arizona and approximately four miles south of I-10. This area is characterized by strings of craggy spires, sheer rock outcrops, natural arches, slickrock canyons, and deep sandy washes. Vegetation is sparse with saguaro, creosote, ocotillo, and cholla dotting the hills and paloverde and ironwood lining the washes. The Wilderness is important desert bighorn sheep habitat. The Wilderness offers many types of primitive and unconfined recreation opportunities, such as extended backpacking and hiking trips, day hikes, wildlife viewing, hunting, rock hounding, and landscape photography. This Wilderness is located adjacent to the Kofa NWR, and both are managed according to the 1997 Kofa NWR and *Wilderness and New Water Mountains Wilderness Interagency Management Plan*.

4. Trigo Mountains Wilderness

The Trigo Mountains Wilderness is located about 25 miles north of Yuma, in La Paz County and is 30,400-acres. The Wilderness is characterized by sawtooth ridges and steep-sided canyons and is heavily dissected by washes. Recreation such as extended horseback riding and backpacking trips, sightseeing, hiking, and rock climbing are enhanced by the topographic diversity, scenic character, as well as botanical, wildlife, and cultural values. The *Trigo Mountains Wilderness Management Plan* is still being developed, and the Wilderness is currently managed under 43 CFR 6300, BLM *Manual* 8560, BLM *Handbook* H-8560-1, and other applicable guidance. Interim operations plans are currently in effect for range, wildlife, and fire management in this Wilderness (USDOI BLM 1992c and 1993b).

5. California Wilderness

The YFO jointly manages four Wilderness Areas in California with the BLM California Desert District. The total acreage managed by YFO is approximately 6,400 acres. The Little Picacho and Palo Verde Mountains Wildernesses are located in Imperial County and co-managed with the BLM El Centro Field Office. The Riverside Mountains and Big Maria Mountains Wildernesses are located in Riverside County and co-managed with the BLM Palm Springs/South Coast Field Office. None of the California Wilderness Areas have management plans, and all are currently managed through interim operation plans for range, wildlife, and fire management in wilderness according 43 CFR 6300, BLM *Manual* 8560, BLM *Handbook* H-8560-1, and other applicable guidance.

B. JUAN BAUTISTA DE ANZA NATIONAL HISTORIC TRAIL (ANZA TRAIL)

In 1774 and 1776, the Spanish crown commissioned the captain of the small Presidio of Tubac (promoted to Lieutenant-Colonel after the first expedition) Juan Bautista de Anza to lead two expeditions to establish a settlement on San Francisco Bay. Congress designated the route followed by Juan Bautista de Anza (Anza) as a NHT in 1990. Within the U.S., the Anza Trail is approximately 1,200 miles long, extending from Tubac, Arizona to San Francisco, California. In 1996, the NPS finalized a Comprehensive Management and Use Plan and EIS for the Anza Trail, which provides the BLM with trail management guidance. Local agencies have been tasked to develop a recreational Anza Trail inside of a one-mile wide corridor

established by the NPS management plan and EIS. Within the planning area, approximately 21 miles of BLM-administered lands along the Gila River are located within this trail corridor. There is currently no operational Anza Trail in the YFO planning area. The de Anza Auto Route has already been established along I-8.

In 1999, the Anza Trail was selected by the White House Millennium Council and the U.S. Department of Transportation as a National Millennium Trail. Millennium Trails "are the roads, rivers and routes that best illustrate the American story," according to the White House proclamation. There is a plan for the Mexican government to develop 600 miles of the trail through Mexico from Culiacan to Nogales, which would create the first international historic trail in the world.

C. WILD AND SCENIC RIVERS

A *Final Arizona Statewide Wild and Scenic Rivers Legislative EIS* was prepared in December 1994. At that time, a determination was made that the BLM would support the development of an interagency EIS addressing the potential eligibility and suitability of the Colorado River's inclusion into the *National Wild and Scenic River System* (USDOI BLM 1994b). To date, an interagency effort for this task has not been coordinated. BLM, USFWS, and NPS manage Federal lands along the lower Colorado River and are responsible for implementing the Wild and Scenic Rivers Act.

For the Gila River, a field assessment was conducted by staff specialists from both the Lower Sonoran and Yuma field offices on June 28, 2005. The entire length of the Gila River within the planning area was determined to be non-eligible for inclusion into the National Wild and Scenic River System. The primary reason for the Gila's non-eligibility was that it did not meet the National Wild and Scenic River System "free-flowing" criteria. Naturally appearing flows only occur within the Gila River during years of heavy precipitation which necessitate water releases from the upstream Painted Rock Dam. Water is otherwise absent or rare within the Gila River floodplain, with most of the water present originating from agricultural runoff.

3.16.2 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

The guidance for ACECs is included in FLPMA where Federal agencies are directed to protect and conserve ecosystems in need of "special management attention" by designating them as "areas of critical environmental concern" in their land use planning process (FLPMA § 1702 [a]). Existing ACECs in the planning area are summarized in the Table 3-21.

Table 3-21
Areas of Critical Environmental Concern in Planning Area

ACEC	Total Acres
Big Marias	4,500
Gila River Cultural Area (Sears Point)	3,600

Source: GIS

A. BIG MARIAS ACEC

The approximately 4,500-acre Big Marias ACEC was designated in the 1987 *Yuma District RMP*. The ACEC is located entirely within Riverside County, California, and contains nationally significant cultural resources such as the Blythe Intaglios and at least 30 other geoglyph sites. The Blythe Intaglios Complex, which was listed on the NRHP in 1975, consists primarily of six giant human and animal images formed on the desert pavement. These unique cultural resources in the Big Marias are recognized by the BLM as the single greatest concentration of geoglyphs in North America. The Big Marias ACEC also contains other features such as rock alignments, cleared areas, trails, and lithic and ceramic scatters.

Two unusual plant species are known to grow in the Big Marias ACEC – Alverson's foxtail cactus (*Coryphantha vivipara* var. *alversonii*) and barrel cactus (*Ferocactus acanthodes* var. *acanthodes*). They are both candidate species for Federal listing as either endangered or threatened, Category 2 (*Federal Register*, December 15, 1980 and as amended *Federal Register*, November 28, 1983). Desert bighorn sheep also inhabit the Big Maria Mountains range.

B. GILA RIVER CULTURAL AREA ACEC

The Gila River Cultural Area ACEC encompasses the Sears Point Archaeological District, which was listed on the NRHP in 1985, an important mesquite bosque composed of mature mesquite trees, and a portion of the Fred J. Weiler Green Belt. The ACEC has been designated since June 1988 when the Lower Gila South RMP Amendment was approved. Currently, the BLM manages approximately 75 percent of the lands contained within the approximately 3,600 acre ACEC boundary.

The prehistoric cultures which are believed to have utilized this archaeological district between around 10,000 B.C. and A.D. 1450 include the Desert Archaic, Patayan, and Hohokam cultures. These cultures left behind a rich assortment of cultural resources, including several thousand petroglyph images etched into the area's basalt mesas, plus other archaeological features like intaglios, trails, rock alignments, rock shelters, shrines/cairns, and lithic and ceramic scatters. The area contains evidence which suggests an unusual association between Patayan and Hohokam features, and is hypothesized to have been a boundary between these two cultures.

The ACEC is situated along an important historic travel corridor that follows the course of the Gila River. Trails that travel across the ACEC include the Anza Trail, Butterfield Overland Mail Route, Mormon Battalion Trail, and the Gila Trail. Historic petroglyphs recording the names and dates of people traveling through the area at various times are also preserved in the basalt rock faces.

3.16.3 NATIONAL RECREATION TRAIL

The YFO currently manages one NRT, which is located within the Betty's Kitchen Watchable Wildlife Viewing Area. Betty's Kitchen is near the Laguna Diversion Dam, which was the first dam on the Colorado River. The dam was completed by Reclamation in 1924 and diverted river water into irrigation canals, enabling the Yuman agricultural industry to thrive. The Betty's Kitchen NRT winds through dense riparian vegetation past a fishing pier and over a rugged metal bridge, and interpretive panels along the walk familiarize the visitor with the natural and cultural features of the area. The NRT also provides public access to fishing and bird watching opportunities. The trail was designated as a NRT in 1993.

3.17 COORDINATED MANAGEMENT AREAS

There are two CMAs within the planning area: Fortuna Pond and Mittry Lake Wildlife Management Area (Maps 2-2a and 2-2c). Both of these areas are managed cooperatively by BLM, AGFD, and Reclamation under agreements between these agencies. AGFD focuses on the management of fish and wildlife resources, including migratory birds; while the BLM focus is on recreation and visitor use, and the protection of natural and cultural resources. Reclamation's role is tied to their authorities associated with the Colorado River water resources development.

3.17.1 FORTUNA POND

Fortuna Pond is located near the confluence of Fortuna Wash and the Gila River, approximately three miles east of County Road 7 E, Yuma County. The site was excavated as a borrow pit during construction of the main outlet drain (i.e., the Wellton Mohawk salinity canal). The pond is inside the south Gila River levee on public land withdrawn by Reclamation.

In July, 1981, Arizona Game and Fish Commission, USFWS, and Reclamation signed a contract stipulating mitigation requirements for impacts from Reclamation's Colorado River Salinity Control Project. Fortuna Pond, identified as Borrow Pit No. 2, was designated by these agencies as mitigation for lost recreational fishing opportunities on the Colorado River (AGFD 2001). The Fortuna Pond area is popular for recreation, especially fishing and camping. Since 1997, BLM, Reclamation, and AGFD have worked cooperatively to improve the site for visitors.

3.17.2 MITTRY LAKE WILDLIFE MANAGEMENT AREA

Mittry Lake is located in Yuma County, about 18 miles northeast of Yuma, Arizona, on the east side of the Colorado River between Laguna and Imperial dams. The Mittry Lake Wildlife Area offers a wide variety of habitat types from open lakes to cattail marshes and streamside woodlands, providing an equally wide opportunity for wildlife-based recreation. This combination of habitat types provides abundant opportunities for fishing, wildlife watching, hiking, boating, and hunting.

In accordance with the provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as

amended; 16 USC. 661 et seq.), the Arizona Game and Fish Commission, and the Secretary of the Interior (acting through the USFWS and Reclamation) entered into a lease and cooperative agreement in 1951 to develop and manage a portion of the Mittry Lake area. In 1971, USDOI gave AGFD administrative authority over 3,800 acres of land and water at the lake for the management of fish and wildlife, including migratory birds. In 1972 (amended 1982), USDOI (acting through Reclamation and BLM) authorized AGFD (through contract agreement) to manage the Mittry Lake Wildlife Area for the purpose of developing, maintaining, and managing fish and wildlife through July 14, 2031. Current management of the area is pursuant to the mandates of the Fish and Wildlife Coordination Act, the above-referenced documents, and AGFD's *Mittry Lake Wildlife Area Management Plan* (AGFD 1997).

3.18 PUBLIC HEALTH AND SAFETY

3.18.1 EMPLOYEE AND PUBLIC SAFETY

Increased pressure from urban interface, growth in visitor use at recreation sites, and the escalation of anti-government sentiment has heightened the awareness of possible conflict in the field.

Confrontations between public land users are becoming more frequent. Gang activities in the recreation sites and back country areas have increased as evidenced by incidents of vandalism and graffiti at facilities and back country areas, law enforcement contacts, and third party reports. Public lands near urban areas provide relative isolation and have experienced an increase in criminal activities, including homicides, stolen vehicles, and the illegal disposal of household and commercial wastes.

The lower Colorado River corridor has received a steady increase in boating and camping recreation. This increase has been reflected in a growing number of boating accidents and problems related to alcohol and drug use. Increased use of the boat-in campsites has significantly increased the number of incidents involving alcohol, drug use, and natural resource destruction requiring response from law enforcement.

With its warm weather and southern travel route, the lower Colorado River has a large transient population. Over the past several years, the number of transient individuals has increased, particularly in the Lake Havasu City, Needles, and Bullhead City areas. Some of these individuals have criminal histories and may present a threat to any public land users who might encounter them.

3.18.2 ABANDONED MINES

Arizona has a long and distinguished mining history and a legacy of abandoned mines. The State of Arizona Mine Inspector conducts inventories of abandoned and inactive mines throughout Arizona via a program known as the Abandoned and Inactive Mine Survey. This program was funded by a contract through the BLM, although that contract ended in 1999.

Currently, the Abandoned and Inactive Mine program estimates that there are at least 125,000 abandoned or inactive mine openings in Arizona. According to the State of Arizona Mine Inspector, there are 378 abandoned mine sites in the planning area. Fifty-eight of these have been field tested by the Mine Inspector's office. The majority of these sites are located in the vicinity of the Town of Quartzsite, Yuma, and northeast of the Kofa NWR. Inventory and field checking of these sites would resume as funding becomes available.

A GIS database of abandoned mine sites is available through the Mine Inspector's office and through the Arizona Bureau of Mines AZMILS database.

The Mine Inspector's office has published several informational brochures regarding abandoned mines. These publications emphasize the safety hazards associated with abandoned and inactive mines and the precautions that should be utilized around these sites. Abandoned mine hazards include, but are not limited to, open shafts and adits, open pits and quarries, high and steep walls of pits and trenches, potential for the presence of explosives, the presence of contaminated air or gas in underground workings and the presence of unstable buildings or structures. Recommended precautions include, but are not limited to, never working alone around abandoned mines, never entering underground workings or unstable structures, and being aware of snakes and other animals that may live in mine workings.

3.18.3 HAZARDOUS MATERIALS MANAGEMENT

Hazardous materials within the planning area consist of military ordnance, downed aircraft and related materials, materials within municipal and informal dumping sites, and mining-related hazardous materials. Each is described in more detail below.

A. MILITARY ORDNANCE

UXO and munitions constituents on military bases on land in proximity to military bases in the U.S. are causing increasing concern. While civilian fatalities from UXO explosions in the U.S. have been rare, the risk of such accidents could increase substantially as more closed military bases are transferred from military to other government agencies or to civilian control. UXO may include but is not limited to bombs, mortars, artillery shells, rockets, submunitions, and mines.

UXO or munitions and explosives of concern consist of military materials used in test and training ranges. Two sources of risk at UXO sites must be considered: (1) risks from UXO explosions and (2) risks from munitions constituents (materials originating from UXO or other munitions, including the chemical constituents that result from their breakdown) that have leached into soil and water. These two hazards differ substantially in the nature of the threats they pose. For example, the consequence of a human accidentally detonating UXO is immediate and typically results in serious injury or death. In contrast, the consequence of human exposure to munitions constituents is most likely chronic and increases the risk of illness after prolonged exposure.

Within the planning area the YPG and the BMGR are potential sources of UXO. The YPG is largely surrounded by BLM-administered land, while the BMGR is bordered intermittently by

State, private, and BLM-administered lands. It is notable that the lands along the margins of the YPG are labeled "No Public Access Danger Live Fire Training Area" on the BLM map (USDOI BLM 1998). All BLM-administered lands bordering the YPG could potentially contain UXO according to BLM sources, although BLM has not documented any specific UXO locations (USDOI BLM 2005d). The realty officer for the U.S. Army Garrison at Yuma was contacted regarding the location of UXO, but did not provide any information.

In addition to UXO, formerly used defense sites located on BLM-administered land may contain hazardous materials. These materials may include, but are not limited to, asbestos-containing materials, lead paint, and petroleum products. The following military radar sites were identified by BLM (USDOI BLM 2005d) as potentially containing hazardous materials:

- Texas Hill,
- Radar Hill, and
- Palo Verde Gap Site (Milpitas Wash).

The U.S. Army Corps of Engineers is responsible for investigating and mitigating environmental impacts related to past military use at these types of facilities. Given the amount of aircraft that is used on the various military facilities in the planning area, it is possible that a downed military aircraft could crash and cause environmental impacts. Impacts would likely be from aircraft fuel, burned materials, and possibly ordnance or munitions on the aircraft.

B. LANDFILLS AND ILLEGAL DUMPING

Authorized landfills (operating, closed, and informal) and illegal dumping have a potential to cause environmental impacts to BLM-administered land. Chemical leachate from these sites has the potential to contaminate soil and reach surface and/or ground water.

Closed or covered landfills that are on or near BLM-administered lands are located near Dateland, the Town of Quartzsite, and Ehrenberg. The type of dumping that took place in these landfills is not known. However, chemical leachate from these landfills has the potential to contaminate soil and reach surface water or groundwater. Informal dumping grounds are known as the Dateland Dump, the Cibola Dump, and informal dumping grounds at Harvey's Fishing Hole near Cibola (USDOI BLM 2005e).

Illegal dumping continues to be a problem throughout the planning area. Concentrations of illegal dumping are greatest at the urban interface. Local law enforcement is responsible for enforcing laws and regulations that prohibit illegal dumping.

C. MINING AND MILLING WASTE

Hazardous mining waste consists of mineralized waste rock, ore stockpiles, and mill tailings. Metallic minerals that occur in the rock have the potential to contaminate soil and water down gradient of the mining waste. Mill tailings may contain traces of metals as well as other chemical constituents, such as acids. Further, mine workings and mine dumps containing sulfide

mineralization can create acid mine drainage when exposed to oxygen and water. The potential for this type of hazardous material occurs at abandoned mines on and adjacent to BLM-administered land. The extent to which these problems exist within the planning area is unknown as a survey has not been conducted.

3.18.4 BORDER ISSUES

The planning area has extensive International Border issues. Undocumented immigrant traffic, smuggling, transient populations, illegal dumping, rampant litter, abandoned vehicles, and diversionary fires are just a few of the issues that are currently impacting the resources of the public lands along the border. Undocumented immigrant and smuggling traffic is known to occur throughout the entire planning area. These International Border issues create challenging management issues for the BLM and cooperating agencies. Law enforcement and YFO resource personnel coordinate with the U.S. Department of Homeland Security and other agencies on a regular basis to address issues associated with these actions.

A 20 mile stretch of the planning area, named the Limitrophe Division by Reclamation, is situated along the International Border with Mexico along the lower Colorado River. "Limitrophe" means a river that forms a boundary between two nations. This densely vegetated riparian area is a public health and safety hazard due to the presence of smugglers and illegal dumping.

3.18.5 MILITARY TRAINING ROUTES

Military training routes are low level military routes that allow Department of Defense aircraft to conduct flights that may be as low as 100 feet above the ground at speeds in excess of 250 knots indicated air speed. Several military training routes cross portions of the planning area (Map 3-28). YFO considers the affects of military training routes when making decisions related to windmills, transportation routes, and recreation areas within the planning area.

3.19 SOCIAL AND ECONOMIC CONDITIONS

There are important relationships between BLM-administered lands and the communities in and near the planning area. Social science and economic information important for the planning process in the planning area were identified as:

- Demography and Social Indicators;
- Social Organization and Institutions;
- Attitudes and Values;
- Human Geography;
- Economic Value;
- Employment, Income, and Subsistence; and

- Public Finance and Government Services.

Information from these categories was used to provide an understanding of the relationship between BLM-administered lands and the social and economic situation in the planning area.

Economic activities closely connected to BLM management decisions in the planning area include livestock grazing management, recreation management, lands and realty management, and mineral resource management. BLM management decisions with regard to economic programs may also affect social conditions, lifestyle, and quality of life. The communities in the planning area may also affect the management of BLM-administered lands because the residents demand various uses of public lands. The demand for recreational use comprises a particularly large number of residents. The mix of demands is related to the demographic and economic profile of area residents, and the perceived value of opportunities provided by the BLM-administered lands.

BLM-administered lands in the planning area are distributed across five contiguous counties in two states (Table 3-1). Potential social and economic effects associated with the proposed RMP revision include changes in employment and income, as well as potential quality of life effects. These effects are likely to occur primarily in La Paz and Yuma counties where the majority of the planning area lands are located. Although the effects are likely to be relatively small in Maricopa, Imperial, and Riverside counties, these counties are also included in the following discussion, as appropriate.

3.19.1 SOCIAL CONDITIONS

Social conditions concern the human communities in the planning area, including towns, cities, and rural areas, and the custom, culture, and history of the area as it relates to human settlement, as well as current social values. BLM management actions can affect social conditions in the planning area and in nearby communities. This section provides a summary of demographic information, and custom and culture, including trends and current conditions. Social conditions often are based on a wide range of community and demographic characteristics and involve broad topics of community interests. Other discussions related to social conditions are provided in Economic Conditions presented later in this section.

A. DEMOGRAPHY AND SOCIAL INDICATORS

Demography and social indicators include population trends; migration; distribution by age and gender; income distribution; percent of households in poverty and percent poverty by race; unemployment; and education.

1. Population Trends

The five-county planning area had a total population of 5.46 million in 2003, with the majority of this population residing in Maricopa (62 percent) and Riverside (31 percent) counties. More than half of the population of Arizona resides in Maricopa County, which includes the cities of Phoenix, Mesa, Glendale, Scottsdale, and Tempe (Arizona Department of Commerce 2004). The

Phoenix Metropolitan area is less than 60 miles east of the planning area. Riverside County also includes a number of large population centers, including Riverside, Moreno Valley, and Corona, none of which are located in close proximity to the planning area (California Demographic Research Unit 2003a). In addition, the lands managed by the BLM in Maricopa and Riverside counties comprise a small share of total land in these counties, as well as a small share of total BLM-administered lands.

County population densities ranged from 4.4 persons per square mile in La Paz County to 333.8 persons per square mile in Maricopa County in 2000 compared to a statewide average of 45.2 persons per square mile. Yuma County had a population density of 29 persons per square mile in 2000. The statewide population density in California was 217.2 persons per square mile in 2000. Imperial and Riverside counties had population densities in 2000 of 34.1 and 214.4 persons per square mile, respectively (U.S. Census Bureau 2005).

Arizona is presently the second fastest growing state in the country. Total population increased by 40 percent in the 1990s and has continued to increase in this decade, increasing by an estimated 9.7 percent between 2000 and 2003 (Table 3-22). Population in the State of California increased slightly faster than the national average in the 1990s, 13.8 percent compared to 13.1 percent (U.S. Census Bureau 2005). Population has continued to grow in California, increasing by an estimated 5.1 percent between 2000 and 2003 (Table 3-22).

Table 3-22
Population by County and Incorporated Place in 1990, 2000, and 2003

State, County	1990	2000	2003	1990 to 2000		2000 to 2003	
				Absolute Change	Percent Change	Absolute Change	Percent Change
Arizona	3,665,339	5,130,632	5,629,870	1,465,293	40.0	499,238	9.7
La Paz*	13,844	19,715	20,715	5,871	42.4	1,000	5.1
Quartzsite	1,876	3,354	3,425	1,478	78.8	71	2.1
Maricopa	2,122,101	3,072,149	3,396,875	950,048	44.8	324,726	10.6
Yuma*	106,895	160,026	175,045	53,131	49.7	15,019	9.4
San Luis	4,212	15,322	19,745	11,110	263.8	4,423	28.9
Somerton	5,282	7,266	8,180	1,984	37.6	914	12.6
Wellton	1,066	1,829	1,880	763	71.6	51	2.8
Yuma	56,966	77,515	83,330	20,549	36.1	5,815	7.5
California	29,758,213	33,873,086	35,612,000	4,114,873	13.8	1,738,914	5.1
Imperial	109,303	142,361	152,600	33,058	30.2	10,239	7.2
Riverside	1,170,413	1,545,387	1,719,000	374,974	32.0	173,613	11.2
Blythe	8,448	20,465	21,300	12,017	142.2	835	4.1

Source: Arizona Workforce 2003, 2004; California Demographic Research Unit 2003b, 2003c
**Note:* RMP related effects are more likely to occur in these counties where the majority of the planning area lands are located.

Population increased in all five planning area counties during the 1990s with increases ranging from 30.2 percent in Imperial County to 49.7 percent in Yuma County (Table 3-21). Net in-migration was the main source of growth in the five planning area counties, ranging from approximately 53 percent of population growth in Imperial County to about 93 percent in La Paz

County (U.S. Census Bureau 1999a and 1999b). Net in-migration accounted for approximately 57 percent of population growth in Yuma County over this period.

Population projections generated by the states of Arizona and California, respectively, anticipate continued population growth in all five planning area counties through 2020 (Arizona Workforce 2005a; California Demographic Research Unit 2003b).

2. Retirement Migration

The percent of total population 65 years or older was 13 percent in Arizona in 2000 and 10.6 percent in California. Persons 65 years or older comprise a relatively large share of the population in La Paz and Yuma counties, accounting for 25.8 percent and 16.5 percent of total population in 2000, respectively. These percentages of persons 65 years or older were much closer to their respective State averages in Maricopa, Imperial, and Riverside counties (U.S. Census Bureau 2005).

Arizona is one of a limited number of states that might be considered a national retirement destination based on inflows of retirees from non-contiguous states. Other retirement destination states include California, Florida, Texas, and North Carolina (Rex 2002). The winter climate is the main factor that attracts retirees to Arizona, with the majority of the net in-migration of retirees occurring in the warmer desert areas including La Paz, Maricopa, and Yuma counties. Many retirees moving to Arizona are attracted to areas with scenic beauty and recreational opportunities, and nearly all of the popular retirement destinations in the State have average to below average living costs (Rex 2002).

Arizona experienced a net gain in older population, defined as those aged 65 and over, of approximately 53,000 between 1995 and 2000. This represented a net migration rate of 87.4, the second highest in the country. This net migration rate means that Arizona gained 87.4 older people for every 1,000 in 1995. Migrants from California and Washington accounted for one-quarter of older movers to Arizona over this period. Other major sources of older migrants included Colorado and Illinois (U.S. Census Bureau 2003).

The percent of housing for seasonal, recreational, or occasional use was 15.7 in Yuma County and 34.6 in La Paz County in 2000.

The large number of people in the baby-boom generation, those born between 1946 and 1964, indicate that much higher levels of retirement migration are likely over the next 20 years. This could increase retirement migration flows to Arizona, but it is also possible this generation may not behave as their parents did when they reached retirement age (Rex 2002).

3. General Demographics of Yuma and La Paz Counties

Yuma County has a somewhat younger population than La Paz County and is larger overall (Table 3-23). Race other than “White” makes up a significant portion of the Yuma County population, which is consistent with the portion of foreign born population. In addition, almost half of the households indicate a language other then English is spoken at home. The proportion of unoccupied housing units is fairly high in both counties.

Table 3-23
General Demographic Characteristics
of Yuma and La Paz Counties, Arizona (2000)

Demographic Characteristic	La Paz County	Yuma County
Population	19,715	160,026
Sex		
Male	51.3%	50.5%
Female	48.7%	49.5%
Median Age (years)	46.8	33.9
Male	46.5	32.7
Female	47.2	35.1
Race		
White	74.2%	68.3%
Black or African American	.8%	2.2%
American Indian/Alaska Native	12.5%	1.6%
Asian	0.4%	0.9%
Native Hawaiian and Pacific Islander	0.1%	0.1%
Some Other Race	9.4%	23.6%
Two or More Races	2.7%	3.3%
Housing Units	15,133	74,140
Percent Unoccupied	44.7%	27.3%
Owner Occupied	43.1%	52.5%
Renter Occupied	12.2%	20.2%
Percent Housing Units for Seasonal, Recreational, or Occasional Use	34.6%	15.7%
Place of Birth		
Native	90.3%	76.0%
Foreign Born	9.7%	24.0%
Language Spoken at Home		
English Only	78.4%	54.5%
Language Other than English	21.6%	45.5%
Employment Status 16 Years and Over		
In Labor Force	44.3%	50.3%
Not in Labor Force	55.7%	49.7%
Class of Worker		
Private Wage and Salary	61.8%	70.8%
Government Worker	29.3%	22.4%
Self-employed	8.8%	6.2%
Unpaid Family Workers	0.2%	0.6%
Median Household Income	$25,839	$32,182
Per Capita Income	$14,916	$14,802
Average Number in Household	2.35	2.97

Source: U.S. Census Bureau 2003

La Paz County exhibits a housing stock where roughly one-third of the units are used for seasonal, recreational, or occasional use. Roughly one-half of individuals 16 years of age or older participate in the labor force with a significant percentage working for government agencies. While median household income is higher in Yuma County, the per capita income is quite similar due to Yuma's larger average household size.

4. Distribution by Age and Gender for Yuma and La Paz Counties

The populations of both Yuma and La Paz counties became older from 1990 to 2000 (Table 3-24) (U.S. Census Bureau 2005).

The largest age category for Yuma County in 2000 was five to nine years old (13,338 people or 8.3 percent of the total in 2000). For La Paz County, the largest age category was 65 to 69 years old (1,690 people or 8.6 percent of the total in 2000) (U.S. Census Bureau 2005). The population in Yuma County increased by 50 percent and in La Paz County increased by 42 percent from 1990 to 2000 (Table 3-24) (U.S. Census Bureau 2005). The age group that experienced the fastest growth was 45 to 49 in Yuma County and 70 to 74 in La Paz County (U.S. Census Bureau 2005).

Table 3-24
Population by Age and Gender in 1990 to 2000

	Total Number	Under 20 years		40 - 54 (Baby Boom in 2000)		65 years and over		Median Age	Density (Pop. per sq. mi.)
		Number	Share	Number	Share	Number	Share		
Yuma County Population by Age and Gender									
Total Population									
2000	160,026	51,023	32%	25,904	16%	26,456	17%	33.9	29
1990	106,895	34,976	33%	14,827	14%	14,849	14%	30.4	19
10 Yr. Change	53,131	16,047	-1%	11,077	2%	11,607	3%	3.5	10
10 Yr. % Change	50%	46%		75%		78%		12%	50%
Distribution by Gender									
Male	80,799	26,092	32%	12,763	16%	13,016	16%	32.7	
Female	79,227	24,931	31%	13,141	17%	13,440	17%	35.1	
Male/Female Split	50% / 50%	51% / 49%		49% / 51%		49% / 51%			
La Paz County Population by Age and Gender									
Total Population									
2000	19,715	4,539	23%	3,645	18%	5,088	26%	46.8	4
1990	13,844	3,987	29%	2,229	16%	2,646	19%	37.2	3
10 Yr. Change	5,871	552	-6%	1,416	2%	2,442	7%	9.6	1
10 Yr. % Change	42%	14%		64%		92%		26%	42%
Distribution by Gender									
Male	10,123	2,351	23%	1,833	18%	2,668	26%	46.5	
Female	9,592	2,188	23%	1,812	19%	2,420	25%	47.2	
Male/Female Split	51% / 49%	52% / 48%		50% / 50%		52% / 48%			

5. Income Distribution for Yuma and La Paz Counties

In 1999 in Yuma County, for every household that made over $100,000, there were 7.7 households that made under $30,000. In 1989, for every household that made over $100,000, there were 33.9 households that made under $30,000 (Table 3-25) (U.S. Census Bureau 2005).

In 1999 in La Paz County, for every household that made over $100,000, there were 15.7 households that made under $30,000. In 1989, for every household that made over $100,000, there were 51.3 households that made under $30,000 (Table 3-25) (U.S. Census Bureau 2005).

Table 3-25
Household Income Distribution for 1989 and 1999

Income	Yuma County		La Paz County	
	1989	1999	1989	1999
Less than $10,000	6,369	5,273	1,646	1,329
$10,000 to $14,999	4,282	4,847	871	876
$15,000 to $19,999	4,339	4,985	632	922
$20,000 to $24,999	3,888	4,917	513	917
$25,000 to $29,999	3,448	4,633	390	759
$30,000 to $34,999	2,673	4,630	322	567
$35,000 to $39,999	2,046	3,649	233	634
$40,000 to $44,999	1,722	2,989	208	459
$45,000 to $49,999	1,439	2,729	137	282
$50,000 to $59,999	2,438	4,301	173	533
$60,000 to $74,999	1,579	4,234	142	464
$75,000 to $99,999	945	3,507	81	345
$100,000 to $124,000	359	1,483	29	140
$125,000 to $149,999	109	581	22	65
$150,000 or more	191	1,146	28	100

6. Percent of Households in Poverty and Percent Poverty by Race for Yuma and La Paz Counties

The family type with the highest poverty rate is "Female-no husband-under five years and five to 17 years" (61 percent were under the poverty line in 1999) (Table 3-26) (U.S. Census Bureau 2005). The race with the highest poverty rate is "Black" (38 percent were under the poverty line in 1999) (Table 3-27) (U.S. Census Bureau 2005).

7. Unemployment for Yuma and La Paz Counties

In 2004, the unemployment rate in Yuma County was 15.4 percent, compared to five percent in the State and 5.5 percent in the nation (U.S. Census Bureau 2005). Unemployment in Yuma County shows a significant seasonal variation. For Yuma County, the unemployment rate varied from a low of 9.7 percent in February 2005 to a high of 21.2 percent in July 2005 (U.S. Census Bureau 2005).

In 2004, the unemployment rate in La Paz County was 6.7 percent, compared to five percent in the State and 5.5 percent in the nation (U.S. Census Bureau 2005). For La Paz County, the unemployment rate varied from a low of 6.1 percent in May 2005 to a high of 7.6 percent in September 2005 (U.S. Census Bureau 2005).

Table 3-26
Families under the Poverty Line by Household Type (1999)

Household Type	Married		Male – No Wife		Female – No Husband	
	Number	Percent	Number	Percent	Number	Percent
Yuma County						
With related children under 18 years	2,982	19	393	29	1,903	45
Under 5 years only	545	18	82	25	325	50
Under 5 years and 5 to 17 years	1,081	24	98	49	503	54
5 to 17 years	1,356	16	213	26	1,075	41
No related children under 18 years	924	5	70	13	218	14
Total	3,906	11	463	25	2,121	37
La Paz County						
With related children under 18 years	193	15	40	19	230	44
Under 5 years only	37	19	2	8	25	41
Under 5 years and 5 to 17 years	52	18	8	29	54	61
5 to 17 years	104	12	30	19	151	49
No related children under 18 years	259	8	21	17	21	12
Total	452	10	61	18	251	36

Note: The percentages above represent the number of families under the poverty line divided by the total number of families in that category.

Table 3-27
Poverty by Race (Individual) Percent of Total (1999)

Race	Number	Percent
Yuma County		
White	15,762	15
Black	556	20
American Indian and Alaska Native	760	30
Asia	119	9
Native Hawaiian and other Pacific Islander	9	6
Other Race	11,385	30
2 or more Races	1,079	24
Hispanic or Latino	22,818	29
White not Hispanic	5,524	8
La Paz County		
White	2,374	16
Black	49	38
American Indian and Alaska Native	790	32
Asia	2	3
Native Hawaiian and other Pacific Islander	0	0
Other Race	481	29
2 or more Races	102	22
Hispanic or Latino	1,261	30
White not Hispanic	1,731	14

Note: Population for whom poverty status is determined. Race and ethnicity are broken out separately. The ethnicity breakout is separate because Hispanics can be of any race.

8. Education Attainment for Yuma and La Paz Counties

In Yuma County, 34 percent of residents 25 and over have less than a high school degree (Table 3-28) (U.S. Census Bureau 2005). In La Paz County, 31 percent of residents 25 and over have less than a high school degree (Table 3-28) (U.S. Census Bureau 2005).

Table 3-28
Education Attainment for Yuma and La Paz Counties (2000)

Education Level	Number	Percent
Yuma County		
Less than high school	33,397	34
High school	25,134	26
Some college	22,800	23
Associate degree	4,780	5
Bachelor's degree	7,017	7
Master's degree	3,063	3
Professional school degree	1,117	1
Doctoral degree	372	0
Total	97,680	
La Paz County		
Less than high school	4,421	31
High school	4,880	34
Some college	3,211	22
Associate degree	627	4
Bachelor's degree	785	5
Master's degree	307	2
Professional school degree	100	1
Doctoral degree	58	0
Total	14,389	

Note: Table is based on the population 25 years and over.

B. SOCIAL ORGANIZATION AND INSTITUTIONS

Social organization and institutions include government (local, county, and Tribal governments in and near the planning area that may be cooperating agencies); communities of place (gateway communities and natural resources dependent communities); and occupational and interest groups.

1. Governments

a. County: Imperial and Riverside counties in California, and La Paz, Maricopa, Yuma counties in Arizona.

b. Local: City of Blythe and City of Needles, California. City of Kingman, City of San Luis, City of Somerton, City of Tucson, City of Yuma, and the Town of Quartzsite, Arizona.

c. Tribal: Ak-Chin Indian Community, Chemehuevi Indian Tribe, Cocopah Tribe, CRITs, Fort McDowell Yavapai Nation, Fort Mojave Indian Tribe, Fort Sill Apache Tribe, Fort Yuma–Quechan Tribe, Gila River Indian Community, Havasupai Tribe, Hia C'ed O'odham, Hopi Tribe, Hualapai Tribe, Kaibab-Paiute Tribe, Las Vegas Paiute Tribe, Mescalero Apache

Tribe, Moapa Band of Paiute Indians, The Navajo Nation, Pascua Yaqui Tribe, Salt River Pima-Maricopa Indian Community, San Carlos Apache Tribe, San Juan Southern Paiute Tribe, Tohono O'odham Tribal Nation, Tonto Apache Tribe, Viejas Band of Mission Indians, White Mountain Apache Tribe, Yavapai-Apache Nation, Yavapai-Prescott Indian Tribe, and Pueblo of Zuni.

2. Communities of Place

Communities of place are local and regional population centers relative to the planning area that would be considered gateway or natural resource dependent communities. Gateway communities are defined as such because they are near publicly owned natural areas that attract visitors who pass through to reach their destination. Increasingly, people who visit an area as tourists return as part-time or year-round residents.

The City of Yuma and Town of Quartzsite are considered gateway communities in the planning area. These communities experience an increase in population during the winter months, due primarily to the weather and recreational opportunities. These communities are near a large variety of scenic and recreational attractions visited by residents and tourists throughout the year.

a. City of Yuma

As of July 1, 2005, the City of Yuma population estimate was 88,775, which reflects a 14.5 percent growth rate since 2000. The population within one hour driving time to Yuma was approximately two million in 2005 (City of Yuma 2005).

Yuma is the third fastest growing area in the U.S. for the period of 1990 to 2000, behind Las Vegas, Nevada and Naples, Florida. Yuma's growth rate during this period was 49.7 percent. Yuma was also Arizona's third largest metropolitan area, behind Phoenix and Tucson (City of Yuma 2006).

The largest employment industries in the City of Yuma are educational, health, and social services at 22 percent; retail trade at 15 percent, and public administration at 12 percent (U.S. Census 2005). Agriculture is a major economic factor, and at the current growth rate, Yuma-area agribusiness is a billion-dollar industry. Tourism and the military also contribute substantially to the economy (Arizona Department of Commerce 2004).

The City of Yuma estimated that 95,000 winter visitors stayed in the area in 2004 (City of Yuma 2006). Recreational and scenic attractions include BLM-administered lands, three USFWS NWRs, Colorado and Gila rivers, historic and cultural sites within the city and surrounding areas, sand dunes, dams, military installations, and port-of-entry communities (Mexico).

b. Town of Quartzsite

As of 2004, the population estimate for the Town of Quartzsite was 3,550, which reflects a 9.4 percent growth rate since 2000 (Arizona Department of Commerce 2004). The Town of Quartzsite experienced an almost 53 percent growth rate from 1990 (population 1,876) to 2004.

The largest employment industries for the Town of Quartzsite were retail trade at 28 percent, arts, entertainment, recreation, accommodation and food services at 16 percent, and construction at 10 percent (U.S. Census Bureau 2005). Tourism is the major contributor to the Town of Quartzsite's economy. The retail trade and services sectors benefit from the visitors who reside at the numerous (more than 70) mobile home and trailer parks in the vicinity between October and March. Nine major gem, mineral, and 15 general swap-meeting shows are popular tourist attractions, attracting 1.5 million people annually (Arizona Department of Commerce 2004). The winter population may reach a temporary peak of 250,000 (Arizona Department of Commerce 2004).

Recreational and scenic attractions are similar to those mentioned for the City of Yuma and also include a wide variety of rock hunting opportunities (agates, limonite, cubes, gold, and quartz are some of the minerals found in the area) (Arizona Department of Commerce 2004).

3. Occupational and Interest Groups

During the scoping process, BLM YFO received comments from the following interest groups:

- Arizona Cotton Growers Association,
- Arizona Native Plant Society Conservation Committee,
- Arizona Wilderness Coalition,
- Blythe Riding Club,
- Center for Biological Diversity,
- Colorado River Board of California,
- Forest Guardians,
- La Cuna Aztlan Sacred Sites Protection Circle Advisory Committee,
- Pacific Legal Foundation,
- Phoenix Zoo,
- Quartzsite Historical Society,
- Quartzsite Roadrunner Gem and Mineral Club,
- Sierra Club,
- Wilderness Society,
- Wildlife Management Institute, and
- Yuma Valley Rod and Gun Club.

During the Economic Profile System Workshop for the YFO and YPG held in May 2005, representatives from the following groups and agencies attended:

- AGFD,
- Arizona Tourism Alliance,
- Arizona Western College,

- City of Yuma Chamber of Commerce,
- Mexican Consulate,
- Minerals (sand and gravel) companies,
- Natural Resources Conservation District,
- USDA NRCS,
- Reclamation, and
- Yuma County.

C. ATTITUDES AND VALUES

Attitudes and values indicators include attitudes and beliefs regarding the local environment and its uses; significance of proposed land management actions for various publics; and quality of life perceptions. Information presented below was derived primarily from two James Kent Associates reports conducted for BLM YFO: *Social Considerations for the YFO in Developing a Preparation Plan for a New Resource Management Plan*, 2001; and *Identifying the Interests and Issues of Winter Visitors in the Yuma Area: A Social Ecology Approach to Community-Based Management*, 2004. These reports identified social/cultural boundaries that distinguished populations in the planning area. The lowest level of population geography identified was the Community Resource Unit. Between the two reports, data were collected for 10 Community Resource Units in the planning area. Field visits for each Community Resource Unit included interviews with publics of interest and formal communications with organizations and potential partners. A summary of the major resource issues and themes identified in the reports for all Community Resource Units is outlined below.

1. Major Resource Issues Identified

- OHV use and access - issues included concerns about loss of OHV areas (closures), need for information brochures on OHV etiquette and safety, damage caused to natural resources, excessive speed, and straying off trails.
- Information - requests for more BLM brochures describing recreational opportunities available, services available, rules of public land use, more interpretive and informational signs, and maps of recreational areas.
- Desert stewardship - concerns about vandalism of facilities, trash accumulation and the need for additional trash disposal sites (closer to camping areas and LTVAs), dumping of hazardous materials, dust control concerns, request for better equestrian trails, concerns that there is too much OHV use, particularly near Yuma, and illegal dumping in many areas including roadways. Individuals expressed interest in desert cleanup opportunities.
- Easements and leases - need for improved ROW process (takes too long), need more business opportunities (concession leases), cooperate more with the Town of Quartzsite to solve ROW issues and land availability needs, and better communication with local governments regarding waste disposal and water services.

- Access - request for additional recreational opportunities along the Colorado River, request for additional camping locations, concerns that areas are being closed to access by the public (but hunters seem to be trespassing), too many restrictions on access particularly in Wilderness and related to endangered species, make more lands available for disposal for community development, and a statement that the public should not be charged for the use of public lands.
- Impacts on the Town of Quartzsite's capacity to deal with winter visitors - the community has experienced budget impacts due to the need for increased law enforcement and fire department services, waste service needs, and library resources.
- Mining - concern that BLM did not recognize recreational mining activities and concerns that miners consider their mining claims as private property, closing off access to the public.
- Law enforcement - requests for additional law enforcement, particularly in LTVAs, concerns that there are insufficient rangers to cover areas where vandalism is occurring, and concerns that rangers do not enforce the rules enough.
- LTVAs - safety and environmental concerns were common, and more information was requested related to facilities, rules, and recreational opportunities near LTVAs.
- Agriculture - request that agricultural leases be renewed on a timely basis, concerns about illegal dumping on agricultural fields, and concern about the loss of agricultural lands to development.
- Water - water issues must be part of BLM planning, concerns that the Colorado River is polluted and has too much trash, and water should be more available to visitors.

2. Major Themes about Public Lands Identified

- People believe that BLM is doing a good job.
- People bring their public land issues with them from their State of origin.
- Most issues were related to services and information, but very few to basic policy direction or philosophy.
- Desert dumping will be an issue that has to be addressed, and can be, outside of planning.
- Ongoing urban environmental education will always be the business of the YFO.
- Awareness is low about public lands, where people can go, and the regulations operating on the lands.

3.19.2 ECONOMIC CONDITIONS

This section provides a summary of regional economic sectors and employment information. This section is divided into main parts that address employment, economic sectors, and potentially affected industries.

A. EMPLOYMENT

Total full- and part-time employment is presented for 2003 for the five planning area counties and the two affected states in Table 3-29. The number of jobs in the five-county planning area increased by almost one half between 1990 and 2000, with the largest increases occurring in the construction, services, finance, insurance, and real estate sectors. Employment increased in all sectors with the exception of mining and military sectors (U.S. Census Bureau 2005).

Table 3-29
Employment by County in 2003

	La Paz	Maricopa	Yuma	Arizona	Imperial	Riverside	California
Total full-time and part-time employment	7,390	1,918,748	76,606	2,874,989	64,206	719,804	19,681,012
Percentage of Total Employment							
By Type							
Wage and salary employment	79.9	83.7	88.8	82.7	85.4	77.2	80.4
Proprietors employment	20.1	16.3	11.2	17.3	14.6	22.8	19.6
By Industry							
Farm employment	4.5	0.4	4.9	0.8	10.2	1.9	1.7
Nonfarm employment	95.5	99.6	95.1	99.2	89.8	98.1	98.3
Forestry, fishing, related activities, and other	(D)	0.2	(D)	0.8	9.9	1.5	1.2
Mining	(D)	0.2	(D)	0.4	0.1	0.1	0.2
Construction	2.8	7.8	5.3	7.4	3.7	10.1	5.4
Manufacturing	3.2	7.4	2.9	6.7	4.0	7.5	8.8
Transportation and warehousing	1.9	3.2	1.8	2.8	(D)	2.2	2.8
Wholesale trade	1.6	4.4	2.5	3.6	3.0	2.8	3.7
Retail trade	18.0	11.4	9.8	11.6	12.3	12.1	10.2
Finance and insurance	0.9	6.7	1.6	5.3	1.9	3.0	4.5
Other services except public administration	(D)	4.7	3.7	5.1	5.3	6.3	6.0
Government and government enterprises	30.6	10.5	21.4	14.3	25.3	14.9	13.7
Federal, civilian	1.9	1.0	3.5	1.7	2.9	0.9	1.2
Military	0.5	0.6	5.6	1.2	0.7	0.3	1.2
State and local	28.2	8.9	12.3	11.4	21.7	13.7	11.2

Source: U.S. Bureau of Economic Analysis (2005)
Note: Full- and part-time employment includes self-employed individuals. Employment is measured as the average annual number of jobs, both full- and part-time, with each job that a person holds counted at full weight.
(D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

The data presented in Table 3-29 are by place of employment, not place of residence, and, therefore include people who work in the area but do not live there. In the case of the border counties, this likely includes Mexican nationals who reside south of the border but work in the

U.S. Data compiled for 2001 indicated that there were 6.7 million border crossings at San Luis in Yuma County with approximately 20 percent of visitors entering Arizona to work (Charney and Pavlakovich-Kochi 2002).

In addition to workers who regularly commute to the U.S. to work, there are also undocumented migrant workers who may not be included in these official totals. There are no official estimates of the size of this population, but unofficial estimates developed by the Pew Hispanic Center have estimated there are as many as 500,000 undocumented migrants in Arizona. Nationwide, approximately 70 percent of undocumented migrants participate in the U.S. labor force, which suggests that there may be as many as 350,000 undocumented migrants working in Arizona (Passel 2005).

B. ECONOMIC SECTORS

1. Yuma County

The retail and services industries (including retail trade; real estate, rental, and leasing services; arts, entertainment, and recreation; accommodation and food services; and other services) have become the highest employment industries in Yuma County, employing 18,891 full- and part-time workers in 2004. Personal income for these industries was $436,168,000 in 2004. Employment for these industries increased by 7.8 percent between 2003 and 2004 (U.S. Bureau of Economic Analysis 2005).

Government and government enterprises (including Federal and civilian, military, and State and local) were the second highest employers in Yuma County, employing 17,075 full- and part-time workers in 2004. Personal income for these industries was $849,810,000 in 2004. Employment for these industries increased by about one percent between 2003 and 2004 (U.S. Bureau of Economic Analysis 2005).

Agriculture and related activities were the third highest employers in Yuma County, employing 14,434 full- and part-time workers in 2004. Personal income for these industries was $275,006,000 in 2004. No data were available to determine the increase in these industries between 2003 and 2004 (U.S. Bureau of Economic Analysis 2005).

2. La Paz County

Government and government enterprises (including Federal and civilian, military, and State and local) were the highest employers in La Paz County, employing 2,362 full- and part-time workers in 2004. Personal income for these industries was $87,393,000 in 2004. Employment of these industries increased by about 0.27 percent from 2003 to 2004 (U.S. Bureau of Economic Analysis 2005).

The retail and services industries (including retail trade; real estate, rental, and leasing services; arts, entertainment, and recreation; accommodation and food services; and other services) were the second highest employment industries in La Paz County, employing about 1,700 full- and part-time workers in 2004. Personal income for these industries was $40,920,000 in 2004. Employment for these industries increased by about 0.27 percent between 2003 and 2004 (U.S. Bureau of Economic Analysis 2005).

Agriculture and related activities were the third highest employers in La Paz County, employing 619 full- and part-time workers in 2004. Personal income for these industries was $10,622,000 in 2004. No data were available to determine the increase in these industries between 2003 and 2004 (U.S. Bureau of Economic Analysis 2005).

3. Economic Activity Level in Yuma and La Paz Counties

Yuma County has a significantly larger level of economic activity than La Paz County (Table 3-30). In the 2000 to 2005 time period, gross product grew much faster in Yuma County than in La Paz County. Together the counties represent almost four billion dollars in economic activity.

Table 3-30
Gross Product: Yuma and La Paz Counties, Arizona, 2000—2005
(Billions of Dollars)

County	2000	2001	2002	2003	2004	2005
La Paz	$0.28	$0.28	$0.29	$0.30	$0.30	$0.31
Yuma	$2.67	$2.88	$3.00	$3.14	$3.29	$3.42

Source: Economy.com Inc., 2002
Note: Sum of all income produced in County including corporate profits.

4. Economic Profile for Yuma and La Paz Counties

Both La Paz and Yuma counties have shown growth in personal income, per capita income and average earnings per job in the 2000 to 2004 time period (Table 3-31). La Paz County showed very little population growth and only modest employment growth in the 2000 to 2004 time period. Yuma County exhibited much larger population and employment growth in the 2000 to 2004 time period. In terms of full-time employment equivalents, Yuma County showed steady growth while La Paz County appeared stagnant in the 2000 to 2005 time period.

Table 3-31
Economic Profile: Yuma and La Paz Counties, Arizona 2000–2004

Category	2000	2001	2002	2003	2004
Personal Income (in thousands)					
La Paz	$308,061	$327,294	$359,390	$359,636	$393,184
Yuma	$2,653,830	$2,976,395	$3,312,998	$3,284,477	$3,563,282
Population (persons)					
La Paz	19,657	19,607	19,509	19,686	19,915
Yuma	160,753	163,452	166,693	170,518	175,629
Per Capita Income					
La Paz	$15,672	$16,693	$18,422	$18,269	$19,743
Yuma	$16,509	$18,210	$19,875	$19,262	$20,289
Total Full-time & Part-time Employment					
La Paz	7,461	7,182	7,331	7,389	7,778
Yuma	68,313	74,896	76,653	77,870	80,783
Average Earnings Per Job					
La Paz	$25,833	$25,221	$28,803	$27,608	$29,351
Yuma	$28,421	$29,365	$32,759	$31,416	$33,497

Source: Regional Economic Information System, Bureau of Economic Analysis, 2006

Although recently revised by the U.S. Department of Labor, the Yuma unemployment rate was quite high, more than doubling the rate found in La Paz County (Table 3-32).

Table 3-32
Labor Data: Yuma and La Paz Counties, Arizona, 2000–2005

Category	2000	2001	2002	2003	2004	2005
Employment						
La Paz	7,124	6,533	6,703	6,850	7,024	7,003
Yuma	53,695	54,162	56,863	59,915	61,396	63,388
Unemployment Rate						
La Paz	6.2%	6.4%	6.7%	7.0%	6.7%	6.9%
Yuma	16.5%	16.4%	16.7%	16.8%	15.6%	16.0%

Source: U.S. Department of Labor, Bureau of Labor Statistics (www.bls.gov), accessed on May 22, 2006.

Table 3-33 provides tax collection information from 2000 to 2005. Both net taxable income and total tax collections increased faster in Yuma than in La Paz County. Retail tax collection growth was fairly similar in the two counties. However, hotel/motel tax collection rate increases were much larger in Yuma County.

Table 3-33
Gross Transaction Privilege, Use, and Severance Tax Collections:
Yuma and La Paz Counties, Arizona, Fiscal Year 2000–2001 through Fiscal Year 2004–2005

Category	FY2000-01	FY2001-02	FY2002-03	FY2003-04	FY2004-05
La Paz					
Net taxable income	$165,512,813	$190,062,464	$160,384,941	$196,553,151	$209,764,823
Total tax collections	$8,294,936	$9,527,328	$8,041,296	$9,851,275	$10,496,926
Retail tax	$4,384,524	$4,753,848	$4,709,286	$5,198,759	$6,071,787
Hotel/motel tax	$276,118	$242,066	$286,014	$297,479	$312,281
Yuma					
Net taxable income	$1,536,749,125	$1,560,215,050	$1,651,429,348	$1,846,049,133	$2,180,324,626
Total tax collections	$76,961,620	$78,114,184	$82,698,950	$92,450,952	$109,156,240
Retail tax	$42,777,847	$43,348,612	$46,516,639	$50,132,210	$57,894,374
Hotel/motel tax	$1,533,120	$1,477,937	$1,588,933	$1,853,807	$2,068,959

Source: Arizona Department of Revenue, 2004 Annual Report

5. Summary of Yuma and La Paz Counties IMPLAN Model

The IMPLAN Input-Output System was applied to economic conditions of Yuma and La Paz counties. IMPLAN enables the user to develop input-output models for regions comprising one or more counties, states, or zip code areas. An IMPLAN model is derived using software developed by the Minnesota Implan Group (MIG, Inc.), that uses the Bureau of Economic Analysis 1997 Benchmark Input-Output Study and incorporates the Bureau of Labor Statistics implicit output deflators from their Employment Growth model projections to get current model parameters. IMPLAN data is currently available by State, county, and zip code through calendar year 2003. These data are updated annually using Bureau of Economic Analysis Regional

Economic Information System and Bureau of Labor Statistics' *Covered Employment and Wages* (ES202) program data.

6. Agricultural Statistical Service and Other Local Area Data Sources

The IMPLAN data for La Paz and Yuma counties for 2003 detail 198 industries with 85,917 total employees, in an economy of 190,300 people in 94,197 households with an average household income of $38,398 and total personal income of $3.6 billion. For purposes of this study, the number of sectors of the model was reduced to 41, leaving the key sectors covering activities on BLM-administered lands disaggregated, and aggregating the remaining activities to broader North American Industry Classification System categories. The basic model structure and key statistics for the area are shown in Table 3-34. The model structure shows the distribution among 41 sectors: $6.4 billion in output, employment of 85,917, employee compensation of $2.47 billion, $448.3 million in proprietor earnings, $863.4 million in other property income, $224.8 million in indirect business taxes, and just over $4 billion in value added.

C. POTENTIALLY AFFECTED INDUSTRIES

The following paragraphs provide an overview of the industries that could be affected by the proposed YFO RMP revision: livestock grazing, mineral resources, recreation, and agriculture. The land managed by BLM in the planning area, approximately 1.3 million acres, is distributed across five large counties, and comprises 6.7 percent of the total land area in these counties. As a result, the contribution of activities on BLM-administered land to the economies of these counties may be relatively small, especially in Maricopa, Riverside, and Imperial counties. This contribution may, however, be very important at the community level and especially for individuals who make all or part of their living from activities on or related to this land.

1. Livestock Grazing

Grazing fees and BLM grazing allotments are measured in terms of AUMs. For a cattle operation, an animal unit is defined as one cow with a nursing calf or its equivalent. An AUM is the amount of forage needed to sustain that cow and calf for one month. AUMs are authorized by BLM on an annual basis. Data compiled for the range analysis presented in this document indicate that BLM manages 16 allotments consisting of approximately 1.2 million acres and 23,907 AUMs, with BLM-administered land accounting for approximately 91 percent of the total acreage.

2. Mineral Resources

In terms of future development potential, the most important mineral resources in the planning area are aggregate (rock, sand, and gravel) and gold (hard rock). These commodities are currently in production (aggregate) or nearing production (gold) in several locations within the planning area. Uranium deposits and oil and gas potential are also present in the planning area. Existing mining activities and resource capabilities in the planning area are discussed in the Mineral Resources Section. Major existing aggregate operations are located approximately 13 miles northeast of Yuma along Highway 95 and near the Gila River channel. Potential future sources of aggregate include a former ADOT gravel pit located approximately 17 miles east of

Table 3-34
Output, Value Added, and Employment in Yuma and La Paz Counties, Arizona, 2003 (in million dollars)

	Industry	Industry Output*	Employment	Employee Compensation*	Proprietor Income*	Other Property Income*	Indirect Business Tax*	Total Value Added*
1	Agriculture, forestry, fish & hunting	59.61	795	8.23	11.83	12.01	1.43	33.51
3	Vegetable and melon farming	616.36	3,440	96.57	202.43	166.63	7.87	473.50
8	Cotton farming	33.41	192	5.13	2.94	7.42	0.42	15.91
10	All other crop farming	85.93	412	6.64	17.39	25.23	2.27	51.53
11	Cattle ranching and farming	30.48	234	1.62	0.17	0.71	0.87	3.37
18	Agriculture and forestry support activities	303.16	16,320	282.61	21.68	-69.41	2.96	237.83
19	Other mining	0.62	2	0.08	0.12	0.19	0.05	0.44
24	Sand, gravel and stone	21.20	202	7.02	1.28	6.39	0.63	15.33
30	Utilities	34.17	173	9.73	0.20	11.49	2.34	23.76
33	Construction	496.73	4,524	118.01	32.55	38.02	2.36	190.95
41	Other new construction	41.27	419	11.23	3.05	1.46	0.16	15.91
45	Other maintenance and repair construction	4.13	68	1.85	0.50	0.23	0.03	2.60
46	Manufacturing	679.26	3,059	99.93	10.47	32.33	3.66	146.39
390	Wholesale trade	198.87	1,954	78.94	5.76	33.83	32.72	151.26
391	Transportation and warehousing	172.12	1,569	66.49	12.12	21.59	4.51	104.72
401	Retail trade	288.74	5,256	132.52	10.48	41.45	41.56	26.00
405	Food and beverage stores	92.66	1,605	35.31	4.94	11.14	11.58	62.96
407	Gasoline stations	88.88	1,173	22.96	19.52	8.80	15.89	67.16
413	Information	200.78	930	44.54	1.47	25.85	3.46	75.32
425	Finance and insurance	109.03	978	26.99	2.82	40.01	1.73	71.55
431	Real estate and rental	180.23	1,256	20.58	27.26	56.99	14.88	119.71
437	Professional- scientific and tech services	110.42	1,396	38.47	14.05	6.84	0.95	60.31
451	Management of companies	16.58	126	6.78	0.10	1.93	0.15	8.96
452	Administrative and waste services	146.37	3,151	57.66	5.86	14.23	2.37	80.11
461	Educational services	12.52	245	6.36	0.03	0.14	0.30	6.85
464	Health and social services	463.75	6,584	212.90	21.38	26.28	2.99	263.56

Table 3-34
Output, Value Added and Employment Yuma County, La Paz County, Arizona, 2003 (in million dollars) (cont.)

	Industry	Industry Output*	Employment	Employee Compensation*	Proprietor Income*	Other Property Income*	Indirect Business Tax*	Total Value Added*
475	Arts- entertainment and amusement	9.00	201	0.50	0.84	0.48	0.08	1.89
478	Recreation and gambling	13.18	286	3.96	1.44	1.96	0.92	8.28
479	Hotels and motels, including casino hotels	24.86	506	8.93	1.09	5.14	2.47	17.63
480	Other accommodations	50.43	604	11.53	1.07	7.81	1.84	22.25
481	Food services and drinking places	188.73	4,421	58.80	1.13	15.55	8.66	84.14
482	Other services	197.75	4,752	81.89	12.30	11.63	7.37	113.19
496	Other Federal government enterprises	7.83	145	2.71	0.00	2.15	0.00	4.86
497	State and local government passenger transit	0.55	13	0.65	0.00	-0.58	0.00	0.07
498	State and local government electric utilities	78.10	170	13.59	0.00	16.71	0.30	30.61
499	Other State and local government enterprises	64.27	340	17.86	0.00	2.79	0.01	20.66
500	Government and non NAICs	324.60	0	0.00	0.00	214.43	44.99	259.42
503	State and local education	288.67	8,006	252.40	0.00	36.27	0.00	288.67
504	State and local non-education	157.06	2,975	133.99	0.00	23.06	0.00	157.06
505	Federal military	263.55	4,913	261.89	0.00	1.67	0.00	263.55
506	Federal non-military	224.92	2,524	222.36	0.00	2.55	0.00	224.92
	Totals	6,380.72	85,917	2,470.21	448.30	863.39	224.80	4,006.69

Yuma, areas along the Gila River, and locations in the foothill terrace gravels on the west and east side of the Gila Mountains. Gold mining in the planning area has occurred since pre-Spanish times and continues today on both a small, recreational scale and on a (potentially) commercial scale. Recreational placer mining is a popular activity in the foothills and washes surrounding the Town of Quartzsite and in the foothill gravels on the flanks of the Gila Mountains. Potential commercial gold operations include the Verdstone and Copperstone properties, which have been mined in the past, and other nearby deposits. Silver, copper, lead, zinc, and uranium deposits or prospects are also present in the planning area.

Oil and gas exploration occurred in the southwestern corner of the planning area primarily during the 1980s. Twenty-six exploratory wells have been drilled in or near this area, with oil and/or gas shows in four of these wells.

The mining sector accounted for approximately 0.4 percent and 0.2 percent of total employment in Arizona and California in 2002, respectively (U.S. Bureau of Economic Analysis 2005). Mining employment data for La Paz and Yuma counties were last available for 1997, with mining accounting for 25 jobs and 61 jobs, respectively. Data for 1998 through 2002 are not available to avoid disclosure of confidential information. Mining accounted for 0.2 percent, 0.1 percent, and 0.1 percent of total employment in Maricopa, Imperial, and Riverside counties in 2002, respectively (U.S. Bureau of Economic Analysis 2005).

The mining sector is typically well paid. The average annual salary for the mining sector in Arizona was $39,959 in 2003, compared to an average annual state salary of $33,837 (Arizona Workforce 2005b).

3. Recreation

Arizona received an estimated 27.8 million domestic overnight visitors in 2003 (Arizona Office of Tourism 2004a). Approximately 2.62 million of these visits were to Arizona's west coast area, which extends along the Colorado River from Lake Havasu to Yuma and includes Yuma and La Paz counties, as well as parts of Maricopa, Yavapai, and Mohave counties (Arizona Office of Tourism 2004b). The average round trip distance traveled by domestic overnight visitors to the west coast area in 2003 was 1,096 miles, with Los Angeles, Phoenix, and San Diego accounting for 33 percent, 14 percent, and 10 percent of total visitors, respectively. Average expenditures per person per day were $78.79, with 81 percent of visitors staying one to three nights (Arizona Office of Tourism 2004b).

Visitors using the planning area include winter visitors who migrate to Arizona from October to March and live in self-contained mobile camping units, weekend visitors from southern California and the greater Phoenix metropolitan area, and local residents who visit for day-use activities on weekends and weekday evenings (USDOI BLM 1987a).

Popular recreation activities in the planning area include hunting, OHV and other motorized use, camping, rock hunting/collecting, fishing, photography, hiking, and wildlife viewing, among other uses (Tetra Tech 2004). Existing recreation opportunities and resource capabilities in the planning area are discussed in Section 3.13 Recreation. Developed recreation opportunities include two concession areas (Hidden Shores RV Village and Walters Camp) and nine recreation fee sites, including the La Posa LTVA, Imperial Dam LTVA, Betty's Kitchen Watchable

Wildlife Area and Interpretive Trail, and Ehrenberg Sandbowl Open OHV Management Area. The La Posa and Imperial Dam LTVAs are the most heavily used dispersed camping areas in the planning area. There are also 13 designated 14-day camping areas near the Town of Quartzsite on BLM-administered land. The 400-acre Ehrenberg Sandbowl OHV Area is designated as an Open OHV Management Area. Within the remainder of BLM-administered lands in the planning area, motorized travel is limited to existing roads, trails, and drivable washes within approximately 1,148,700 acres and closed to motorized travel on approximately 169,000 acres.

Recreation and tourism is not classified or measured as a standard industrial category and therefore, employment and income data are not specifically collected for this sector. Components of recreation and tourism activities are instead captured in other industrial sectors, primarily the retail sales and services sectors. The contribution of travel and tourism to a local economy and employment may, however, be generally assessed by assigning all or a portion of the economic impacts in other sectors to visitors. Employment in the arts, entertainment, and recreation and the accommodation and food services sectors accounted for 18 percent and 10 percent of total covered employment in La Paz and Yuma counties in 2003, respectively, compared to 11 percent statewide (Arizona Workforce 2005c). This provides a general indication of the relative importance of travel and tourism, but tends to overstate the total contribution because these totals also include employment supported by local spending in these sectors.

Employment in the recreation and tourism sector tends to be seasonal and relatively low wage, with a high proportion of the labor force self-employed. In Arizona in 2003, the average annual salary in the arts, entertainment, and recreation sector was $26,213, and in the accommodation and food services sector was $17,319. These salaries are low compared to the average annual state salary of $33,837 (Arizona Workforce 2005b).

A recent study of the economic importance of OHV recreation in Arizona estimated that OHV recreation supported approximately 459 and 1,094 full- and part-time jobs in La Paz and Yuma counties in 2002, respectively (Silberman 2003). These estimates are based on surveys of local residents and do not include non-residents or commercial operators. A similar study conducted for fishing and hunting found that fishing and hunting activities supported approximately 232 and 689 full- and part-time jobs in La Paz and Yuma counties in 2001, respectively (Silberman 2002). There is likely some overlap in these estimates, because some OHV users are driving an OHV to gain access to areas for hunting and fishing. These estimates do, however, provide an indication of the relative importance of these activities to La Paz and Yuma counties.

4. Lands and Realty—Agriculture

There were a total of 6,465 farms and ranches in the five-county planning area in 2002, with a total of 101 and 531 farms identified in La Paz and Yuma counties, respectively (USDA 2005). The overall value of agricultural products sold in the planning area's five counties was about four billion dollars. Market share data are not available for Yuma County. In the other four planning area counties, crops and livestock accounted for approximately 62 percent and 38 percent of total value, respectively. Crops accounted for approximately 99.3 percent of agricultural production by market value in La Paz County. Although market share data are not available for Yuma County, data on the number of farms suggest that crop production accounts for a large share of overall agricultural activity in the county with 84 percent of farms engaged in crop production in 2002 (USDA 2005).

Farms in the five-county planning area provided nearly 55,000 jobs in 2002, approximately three percent of total employment, compared to statewide averages of 1.3 percent in Arizona and 2.7 percent in California. Agricultural employment was relatively important in La Paz, Yuma, and Imperial counties, accounting for approximately 12 percent, 11 percent, and 13 percent of total full and part-time employment in 2002, respectively (Table 3-35). Employment in the agricultural sector is often seasonal or part-time and workers are often self-employed.

Table 3-35
Agricultural Employment by County in 2002

State, County	Farm Employment	Percent of Total Employment
Arizona	36,459	1.3
La Paz*	877	12.3
Maricopa	13,990	0.7
Yuma*	8,265	10.8
California	535,256	2.7
Imperial	8,438	13.1
Riverside	22,788	3.2
Total Planning Area	54,358	2.6

Source: U.S. Bureau of Economic Analysis (2005)
*RMP-related effects are most likely to occur in these counties, where the majority of the planning area lands are located. The data include covered and self-employed farm workers.

Farm income accounted for approximately one percent of total income in the five planning area counties in 2002, ranging from 0.1 percent in Riverside County to 7.3 percent in Imperial County in 2000 (Table 3-36). Farm income comprised approximately 6.8 percent and 5.7 percent of total income in La Paz and Yuma counties, respectively (Table 3-36). Farm income fluctuated as a percentage of total income in the five planning area counties in the 1990s. Adjusted for inflation, farm income in the five-county planning area decreased by 28.5 percent between 1990 and 2000, with the largest decreases, 52.7 percent and 41.6 percent, occurring in Imperial and La Paz counties (Table 3-36). Farm income increased slightly (4.7 percent) in Yuma County over the same period.

Table 3-36
Agricultural Income by County in 1990 and 2000 (in thousands)

	1990		2000			
County	Agriculture	Farming as Percent of Total Income	Agriculture	Farming as Percent of Total Income	Absolute Change	Percent Change 1990 to 2000
La Paz*	35,632	19.6	20,815	6.8	-14,817	-41.6
Maricopa	256,893	0.6	278,269	0.3	21,376	8.3
Yuma*	143,551	9.7	150,338	5.7	6,787	4.7
Imperial	391,129	22.0	185,101	7.3	-206,028	-52.7
Riverside	29,458	0.1	35,339	0.1	5,881	20.0
Total	354,290	1.6	253,397	0.7	-100,893	-28.5

Source: U.S. Bureau of Economic Analysis (2005)
*RMP-related effects are most likely to occur in these counties, where the majority of the planning area lands are located.

3.20 ENVIRONMENTAL JUSTICE

U.S. EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 CFR 7629, 16 February 1994) directs Federal agencies to "make … achieving environmental justice part of its mission" and to identify and address "…disproportionately high and adverse human health or environmental effect of its programs, policies, and activities on minority and low-income populations." BLM IM No. 2002-164 confirms that "BLM will incorporate environmental justice considerations in land use planning alternatives to adequately respond to environmental justice issues and problems facing minority populations, low-income communities, and Tribes living near public lands, working with, and/or using public land resources."

3.20.1 METHODOLOGY

Pursuant to IM No. 2002-164, this section identifies possible minority, low-income, or Tribal populations that might be subject to disproportionately high and adverse environmental impacts or health effects from activities proposed in the planning area. The areas of potential effect for environmental justice are Yuma, La Paz, and Maricopa counties in Arizona; and Imperial and Riverside counties in California.

The first step in analyzing this issue is to identify minority, low-income, and Tribal populations that might be affected by implementation of any of the proposed alternatives. Demographic information on ethnicity, race, and economic status is provided in this section as the baseline against which potential effects of future land use decisions can be identified and analyzed. Information utilized in this section is directly from the U.S. Census Bureau which provides necessary data for environmental justice analysis.

3.20.2 BASELINE ANALYSIS

A. MINORITIES

Minorities are persons of Hispanic or Latino origin of any race, Blacks or African Americans, American Indians or Alaska Natives, Asians, and Native Hawaiian and other Pacific Islanders. Compilation information on minority populations is presented in Table 3-37.

The CEQ identifies these groups as minority populations when either:

- The minority population of the affected area exceeds 50 percent; or
- The minority population percentage in the affected area is meaningfully greater than the minority population percentage in the general population or appropriate unit of geographical analysis.

In order to be classified as "meaningfully greater," a local population must exceed the State minority population by 10 percent; in the State of Arizona, this threshold is 36.2 percent.

Because the minority population in California exceeds 50 percent (53.3 percent), the latter condition is not applicable for California counties.

Table 3-37
Minority Populations in 2000

Minority Populations	County				
	Yuma AZ	**La Paz AZ**	**Maricopa AZ**	**Imperial CA**	**Riverside CA**
Total Population	160,026	19,715	3,072,149	142,232	1,545,387
White not of Hispanic/ Latino origin (%)	44.3	63.8	66.2	20.2	51.0
Minority, composed of* (%)	55.7	36.2	33.8	79.8	49.0
Hispanic or Latino origin (%)	50.5	22.4	24.8	72.2	36.2
American Indian or Alaska Native (%)	1.6	12.5	1.8	1.9	1.2
Black or African American (%)	2.2	0.8	3.7	4.0	6.2
Asian (%)	0.9	0.4	2.2	2.0	3.7
Native Hawaiian and other Pacific Islander (%)	0.1	0.1	0.1	0.1	0.3

Source: U.S. Census Bureau, 2002, State and County *Quick Facts.* Available online at http:quickfacts.census.gov/qfd/states.html
*Totals may not add up due to reporting classifications.

Minority populations in Yuma County, Arizona, and Imperial County, California, both exceed 50 percent of the total population, meeting the CEQ standard for having a minority environmental justice population. Throughout the planning area, persons of Hispanic or Latino origin constitute the largest portion of the minority population, which is consistent with the planning area location near the Mexican border. La Paz County, Arizona, has a large percentage of American Indian or Alaska Native persons (see Tribal populations below).

B. LOW INCOME POPULATIONS

Low-income populations are defined by environmental justice guidance by using the statistical poverty thresholds of the U.S. Census Bureau. In 1999, the poverty-weighted average threshold for a family of four was $17,029 and $8,501 for an unrelated individual (U.S. Census Bureau 2001). The national poverty level was 12.4 percent. In order to be classified as "meaningfully greater," local poverty rates must exceed the national rate by 10 percent; this threshold is 22.4 percent. Imperial County, California, meets this standard with 22.6 percent of its population living below the poverty limits. Compilation information on low-income populations is presented in Table 3-38.

Table 3-38
Low-Income Populations in 1999

Jurisdiction	Percent Below Poverty Level
United States	12.4
State of Arizona	13.9
Yuma, AZ	19.2

Table 3-38
Low-Income Populations in 1999 (cont.)

Jurisdiction	Percent Below Poverty Level
La Paz, AZ	19.6
Maricopa, AZ	11.7
State of California	14.2
Imperial, CA	22.6
Riverside, CA	14.2

Sources: U.S. Census Bureau 2001, U.S. Census Bureau 2002

C. TRIBAL POPULATIONS

Tribal populations are defined as groups of individuals who live within the boundaries of designated reservations. The planning area contains three Native American tribal reservations.

The CRIT Reservation is located in the northwestern corner of the planning area. The reservation spans the Colorado River and contains land in La Paz County, Arizona, and San Bernardino County, California. The CRIT economy is centered around agriculture, recreation, as well as government and light industry. According to the InterTribal Council of Arizona, the CRIT have senior water rights to 717,000 acre feet of the Colorado River, which is almost one-third of the allotment for the entire State of Arizona (InterTribal Council of Arizona 2003). The river is also the tribes' greatest recreational resource offering scenic attractions as well as fishing and boating opportunities. The CRIT operate the Ahakhav Preserve, a 250-acre aquatic and riparian habitat preserve which offers hiking and wildlife viewing. The BlueWater Resort and Casino opened in 1999. In 2000, 1,998 people lived within the reservation boundaries, of whom 1,707 identified themselves as full members of the CRIT. Twenty-seven percent of the CRIT residents were classified as living below the poverty level (U.S. Census Bureau 2004).

The Cocopah Reservation is located south of the City of Yuma (Yuma County) in the southwest corner of the planning area boundary just east of the Colorado River. Agriculture is the tribe's major economic resource, farming on its irrigated lands and leasing farmland to non-Indian farmers. The tribe opened a tribal museum and cultural center in 1999 and operates a casino with slot machines and bingo. In 2000, approximately 1,013 people lived within the reservation boundaries, of whom 891 identified themselves as full members of the Cocopah Tribe. Almost 35 percent of the reservation residents were classified as living below the poverty limits (U.S. Census Bureau 2004).

The Fort Yuma–Quechan Reservation is located along both sides of the Colorado River just west of the City of Yuma, in Yuma County, Arizona and Imperial County, California, as well as abutting the Mexican states of Baja California and Sonora. The reservation encompasses 45,000 acres and is bisected by Interstate 8 mid-way between Phoenix, Arizona, and San Diego, California. Largely an agricultural community, the Quechans lease a 700-acre farm and a sand-and-gravel operation to non-Indian businesses. The tribe also counts on tourism and related businesses to augment its economy. In addition to trailer and RV parks and a small museum, the tribe recently developed a casino. In 2000, 2,761 people lived within the reservation boundaries, of whom 2,146 identified themselves as full tribal members. Approximately 25 percent of the

residents on the reservation were classified as living below the poverty level (U.S. Census Bureau 2004).

3.20.3 PUBLIC INVOLVEMENT AND ENVIRONMENTAL JUSTICE

Public involvement meets two requirements of EO 12898:

- It aids in identifying minority and low-income groups; and,
- It provides the means for these groups to participate in Federal decision making that might affect them.

A full description of the public involvement process is located in the Scoping Report. Persons and organizations known or thought to have a potential interest, including minority, low-income, disadvantaged, and Native American groups, were identified, informed, and given the opportunity to participate in the decision-making process.

3.20.4 SUMMARY

Environmental justice populations exist throughout the planning area, specifically in Yuma County, Arizona, and Imperial County, California, as well as on the three reservations. Impacts of the of the PRMP alternatives analyzed in this FEIS will be evaluated for disproportionately high and adverse environmental impacts or health effects from activities and land use decisions proposed in the planning area.

No environmental justice-specific issues were raised during the scoping process, although there were several issues raised about the International Border and undocumented immigrants.

3.20.5 PROTECTION OF CHILDREN

EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks* (April 21, 1997) recognizes a growing body of scientific knowledge that demonstrates that children may suffer disproportionately from environmental health risks and safety risks. These risks arise because (1) children's bodily systems are not fully developed, (2) children eat, drink, and breathe more in proportion to their body weight, (3) their size and weight may diminish protection from standard safety features, and (4) their behavior patterns may make them more susceptible to accidents. Based on these factors, the President directed each Federal agency to make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children. The President also directed each Federal agency to ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

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CHAPTER 4.0
ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

This chapter analyzes and discloses the potential environmental impacts from implementing any of the RMP alternatives described in Chapter 2. Existing environmental conditions described in Chapter 3 comprise the baseline used for projecting these impacts. Management actions and land use decisions that could impact the human environment (i.e., the natural and physical environment and the relationship of people with that environment) have been analyzed, and the conclusions drawn from those analyses are described under the appropriate resource consequence section. The order of this chapter mirrors the order of resources and resource uses described in the planning area's existing conditions (Chapter 3). This ordering sequence allows the reader to compare existing resource conditions in Chapter 3 to the potential impacts described here in Chapter 4.

As discussed in Chapter 2, this RMP identifies two different types of LUP decisions:

- Desired Future Conditions (Goals and Objectives)
- Management Actions (Allowable Uses)

4.1.1 TYPES OF IMPACTS

Direct, indirect, and long-term environmental consequences were considered for each resource. Effects and impacts as used in this document are synonymous, and may be either beneficial or adverse. Direct impacts from BLM authorized actions generally occur at the same time and place as the action. Indirect effects usually occur further in time and/or distance from the action. Adverse effects to the human environment are impacts that would be unavoidable if one of the alternatives were selected and implemented, as a result of YFO following the mandate to allow for multiple use of resources and protect public health and safety. These potential adverse impacts are addressed only under those resource sections where they could foreseeably occur.

Cumulative impacts, discussed at the end of this chapter, are impacts on the environment that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency or individual undertakes such other actions.

The impacts of the planning decisions on visitor experience depend largely on the expectations and values of the individual visitors. Any particular action could benefit some users and be simultaneously perceived as having an adverse effect by others. The degree of impact also varies

relative to user sensitivity. Sensitivity varies among different user types and may also differ between new users and traditional users of a particular resource.

4.1.2 CRITICAL ELEMENTS NOT ADDRESSED

The only critical element to the human environment not addressed in this document is Wild and Scenic Rivers. This plan has not addressed this critical element because no eligible Wild and Scenic Rivers are present in the planning area.

4.1.3 GENERAL ANALYTICAL ASSUMPTIONS

Due to the programmatic and strategic nature of the RMP alternatives, the timing and specific location of project-specific actions that could impact resource values are not always defined. Moreover, the relationship between cause (future actions) and effect (impacts on resources) is not always known or quantifiable. For these reasons, the analysis of alternatives is both qualitative and quantitative and based on a series of assumptions. The following general analytical assumptions and guidelines were used to facilitate the analysis of environmental consequences. Other assumptions specific to a particular resource are presented under that resource.

Most of the impacts discussed under each resource or resource use are potential, not unavoidable. Potential impacts are described here as accurately as possible for the purpose of disclosure and planning.

A fundamental assumption is that BLM would continue to avoid or minimize impacts to the extent feasible by pursuing the Desired Future Conditions, implementing the Management Actions, Administrative Actions, BMPs, Conservation Measures, and Stipulations for Land Actions as described in Chapter 2.

Funding and personnel would be sufficient to implement any of the alternatives as described in Chapter 2. The laws, regulations, and policies that direct BLM work, and with which all BLM activities must comply, would be applied consistently across all alternatives. All alternatives would maintain vegetation resources and meet the need for water, nutrients, and energy cycling. The approved RMP is expected to be effective for 15 to 20 years or longer.

Short-term impacts are those expected to occur within one to five years after implementing the activity. Long-term impacts are those that would occur after the first five years of implementation.

Comparison of impacts among resources is intended to provide an impartial assessment to inform the decisionmaker and the public. The impact analysis does not imply or assign a value or numerical ranking to impacts. Actions resulting in adverse impacts to one resource may impart a beneficial impact to other resources.

Key planning issues identified in Chapter 1 provide the focus for the scope of impact analyzed in this chapter.

4.1.4 SPECIFIC RESOURCE ASSUMPTIONS

The following resource-specific assumptions and guidelines were used to facilitate the analysis of environmental consequences. Other assumptions specific to a particular resource are presented under that resource:

- Wildlife Habitat: The loss of any wildlife habitat may cause a reduction in wildlife populations.
- Cultural Resources: Cultural resources would continue to deteriorate through natural forces, visitation, and vandalism if no corrective or preventive action is taken.
- Rangeland Resources: Current trends in livestock market conditions would continue. Livestock values would therefore remain the same as at present.
- Vegetation Resources: Assessments of vegetation-related impacts are based on expectations of normal precipitation during the life of the plan.
- Grazing: Long-term grazing use levels would be based on monitoring information, including utilization studies and actual use data.
- Wilderness Characteristics: The loss of any wilderness characteristics would degrade naturalness and opportunities for solitude and primitive, unconfined recreation.
- Land Tenure: Lands designated as available for disposal may contain various types of encumbrances such as ROWs or permits. Conveyance documents would address encumbrances, if any, on the lands to be disposed.
- ROWs: All land use authorizations would have site specific impacts evaluated on a case-by-case basis using the appropriate NEPA documentation including those within designated ROW Corridors and communications sites.
- Recreation: Visitor use of public lands would continue to increase at present rates. Current types of recreation use would continue in the future unless otherwise stated.
- Wilderness Managed by YFO: Under the Arizona Desert Wilderness Act of 1990, Wilderness in Arizona (Eagletail Mountains, Muggins Mountains, Trigo Mountains, and New Water Mountains Wilderness areas) would continue to be managed by BLM under the Wilderness Act of 1964.
- Under the California Desert Protection Act of 1994: Wilderness in California (Big Maria Mountains, Little Picacho, Palo Verde Mountains, and Riverside Mountains Wilderness areas) would continue to be managed by the BLM under the Wilderness Act of 1964.
- Minerals: The Federal government would retain all mineral rights on public lands identified for disposal where valuable minerals are known to occur.

- Threatened and Endangered Species: Compliance with Section 7 of the ESA would be completed before implementing specific projects resulting from RMP decisions.

4.2 AIR QUALITY, WATER, AND SOIL RESOURCES

4.2.1 AIR QUALITY

Predictions of potential air quality impacts within the planning area were based on data sources when available and on the use of nearby representative data to fill in data gaps or when otherwise appropriate. The primary sources of impacts on air quality in the PM_{10} non-attainment area within the planning area are windblown dust and human activity. While windblown dust is generated in undisturbed areas, it is much more prevalent where the natural soils and soil retaining vegetation have been disturbed by human activity. Windblown dust emanates from agricultural fields, miscellaneous disturbed areas, unpaved roads, and urban disturbed areas. ADEQ has proposed several measures in the Yuma Natural Events Action Plan such as reducing track-out onto paved roads; using PM_{10}-efficient street sweepers on paved roads; enforcing construction dust control plans; and watering, grading, and compacting unpaved roads to decrease PM_{10} emissions resulting from these site conditions (USDOI BLM 2005e). Under all alternatives, BLM management actions that may result in impacts as stated would be avoided or minimized to the maximum extent possible by following Management Actions, BMPs (outlined in Chapter 2), and Conservation Measures (Conservation Measures for Fire Management Activities, Appendix 2-C).

The analysis of potential impacts to air quality was based on review of existing literature and the expertise of BLM resource specialists at the YFO. Literature sources include but are not limited to the following:

- *Final Analysis of the Management Situation for the Yuma* RMP *and* EIS (USDOI BLM 2005e).

A. DIRECT AND INDIRECT IMPACTS

Potential impacts (direct and indirect) to air quality are categorized below as those resulting in increases in dust, smoke, and emissions in the planning area. Based on the information presented in this document and the assumption that BLM would adhere to applicable preventative measures proposed by ADEQ for reducing PM_{10} emissions in the planning area, it is unlikely that activities conducted within BLM jurisdiction would result in exceeding regional emissions levels. The consideration of potential air quality impacts is qualitative at this stage of the RMP revision process.

Air pollutants may result from natural or human processes. Natural pollution may occur from naturally occurring wild-fires (e.g., from lightning strikes), decomposition of plants and animals, soil erosion, pollen and mold spores, volatile organic compounds emitted by vegetation, electrical storms, and photochemical reactions. Human pollution sources include industrial

sources, prescribed wildland burning, animal production, agricultural burning, residential and business development, and vehicle emissions.

1. Dust and Smoke

a. From Vegetation Resource Management

Vegetation treatments include manual, biological, mechanical, fuel breaks, herbicide application, and prescribed fire. Vegetation management activities could affect air quality through smoke emissions from wildfires, prescribed burns, exhaust from machinery used in site preparation, fire control, monitoring, and thinning activities. Smoke from wildfires and prescribed fire is a complex mixture of carbon, tars, liquids, and gases. The major pollutants are particulate matter (PM_{10} and particulate matter up to 2.5 micrometers in size), carbon monoxide, and volatile organic compounds. Nitrogen oxides are also produced in relatively small quantities compared to the other pollutants. Sulfur oxides compounds are produced in negligible quantities due to low elemental sulfur content of forest fuel. Other constituents of smoke (gases and chemicals) may also be generated by burning. All prescribed fire activities are required to follow ADEQ smoke management regulations.

The most effective method of controlling wildfire emissions is to prevent the occurrence of wildfires. Prescribed burning is one of the most frequently used techniques as a preventive measure for reducing wildfire occurrence. Wildfires generally result in greater emissions per acre when compared to prescribed burns. They also often occur under conditions of high temperature and low humidity, when high concentrations of ozone are most likely.

b. From Travel Management

OHV travel would not be restricted to existing or inventoried routes within proposed Open OHV Management Areas. This would result in increased dust emissions from OHV use within these areas when compared to dust emissions from Limited OHV Management Areas, where OHV travel would be limited to inventoried routes. Travel in Open OHV Management Areas disturbs soils by tires of vehicles physically breaking loose sediments and disturbing soil retaining vegetation. This can result in an increase of PM_{10} concentrations, not only during the process of travel, but after the travel has occurred due to the physical disturbance of soils causing increased erosion by wind and water.

Within the non-attainment area, YFO proposes Open OHV Management Areas which may adversely impact PM_{10} concentrations.

Closed OHV Management Areas protect local air quality by precluding the generation of fugitive dust emissions from motorized travel.

The growing popularity of OHVs has led to concerns about the possible air quality impacts from this form of recreation. Emissions from OHV engines includes carbon monoxide, hydrocarbons, particulate matter, and a variety of gases classified as “air toxins” such as formaldehyde, other related aldehydes, and volatile organic compounds such as benzene.

Travel along existing inventoried routes disturbs soils by tires of vehicles physically breaking loose sediments, which results in increased wind and water erosion of soils and increased PM_{10}

concentrations. Travel would be confined to existing routes which are already disturbed, localizing impacts to areas surrounding existing routes.

c. From Lands and Realty Management

BLM-authorized actions that permit soil or surface disturbance, such as major ROWs, communications sites, access roads, concessions, and other types of facility construction, would increase fugitive dust emissions in the planning area.

Road construction has the potential to create fugitive dust and increase PM_{10} concentrations. The application of mitigation measures such as watering or reduced vehicle speed limits can minimize these impacts.

d. From Mineral Resource Management

Mineral operations and development would generate dust and airborne particulates. Impacts would depend on the location of activities. Mineral operations and activities would be mitigated on a case-by-case basis to minimize noise and dust as part of the permitting process.

B. DIFFERENCES BETWEEN ALTERNATIVES

Impacts to air quality from proposed decisions in this RMP are primarily related to motorized travel within Open OHV Management Areas (Table 4-1). The two new Open OHV Management Areas proposed in the DRMP/DEIS were removed from the PRMP/FEIS Proposed Plan. Alternatives A, D, and the Proposed Plan would not designate new Open OHV Management Areas but would continue the existing Open designation at the 400-acre Ehrenberg Sandbowl, which is outside of the planning area's PM_{10} non-attainment area. Two proposed Open OHV Management Areas are designated under Alternatives B and C, along with an expanded Open designation at the Ehrenberg Sandbowl. The Blaisdell proposed Open OHV Management Area is located within the PM_{10} non-attainment area and currently has numerous existing routes. This PRMP/FEIS has not proposed Closed OHV Management Areas within the PM_{10} non-attainment area. The table below quantifies the OHV Open, Limited, and Closed areas by alternative (Table 4-1).

Table 4-1
Travel Management Designations by Alternative (BLM acres)

Designation	Alternative				
	A	B	C	D	E
Open Areas					
Total Open (acres)	400	3,800	2,400	400	400
Closed Areas					
Designated Wilderness	167,800	167,800	167,800	167,800	167,800
Non-wilderness areas	1,200	3,200	3,500	66,000	5,100
Total Closed (acres)	169,000	171,000	171,300	233,800	172,900
Limited Areas					
Total Limited (acres)	1,148,600	1,143,200	1,144,300	1,083,800	1,144,700
Total Open, Closed, and Limited					
Total Acres	1,318,000	1,318,000	1,318,000	1,318,000	1,318,000

Table 4-2 below quantifies potential impacts to air quality by disclosing the acreages and miles of lands and realty actions by alternative. Alternatives B and C would result in an increase in potential impacts to air quality, as compared to Alternative A (Table 4-2) because more ROW Corridors and communications sites are proposed in these alternatives. Implementation of the Proposed Plan would result in impacts at an amount less than under Alternatives B and C, but greater than Alternatives A and D. Alternative D would result in only a slight increase of impacts, as compared to Alternative A.

Table 4-2
Lands and Realty Proposed Actions by Alternative

Lands Actions	Alternative				
	A	B	C	D	E
Disposal					
Total Acres	19,100	46,900	10,500	8,200	11,900
Acquisitions					
Lands would be acquired from willing sellers on a case-by-case basis.					
Withdrawal					
Designated Wilderness	167,800	167,800	167,800	167,800	167,800
ACECs*	6,500	3,600	5,400	8,300	12,000
Total Closed (acres)	174,300	171,400	173,200	176,100	179,800
ROW Corridors					
Total Number of Corridors	4	10	10	5	8
Total miles	300	500	500	400	465
Communications Sites					
Total Number of Sites	6	13	11	8	10
Renewable Energy					
Proposed on a case-by-case basis to meet public demand.					

*BLM would propose to withdraw 2,900 acres in the Big Marias ACEC should Reclamation revoke their existing withdrawal for the area. In 1996, Public Land Order 7212 identified 3,600 acres for withdrawal as the Gila River Cultural ACEC. The Public Land Order immediately withdrew approximately 1,700 acres of Federal lands. An additional 1,900 acres of non-Federal lands, within the designated boundary of the ACEC, if acquired by the U.S., would also be by Public Land Order 7212. Through the acquisition of non-Federal lands since 1996, there are currently 2,400 acres of withdrawn BLM lands within the existing Gila River Cultural ACEC.

C. UNAVOIDABLE ADVERSE IMPACTS

Emissions from a single vehicle are generally low in comparison to smoke-stack emissions; however, the combined emissions of many vehicles can create a large overall emission source. These emissions are largely concentrated in urban centers. Pollution from cars comes from by-products of combustion, as well as evaporative emissions. Pollutants associated with highway vehicle use include hydrocarbons and nitrogen oxides, which are precursors to ozone, as well as carbon monoxide, CO_2, particulate matter, and a variety of gases classified as “air toxins.”

Smoke generated from wildfires, managed natural fires, and prescribed burns would be unavoidable, but impacts would be short-term and generally moderate. It is anticipated that OHV and overall recreational use would increase in proportion to population increases in the surrounding area. Natural events (e.g., wind) would continue to create dust levels that could exceed air quality standards in the planning area. The overall impacts to air quality from proposed mineral developments, and lands and realty actions are expected to be minor.

4.2.2 WATER RESOURCES

The primary impacts to water resources within the planning area potentially affect surface water quality, sedimentation, ground water quality, and ground water quantity. Management actions and land use decisions that may cause or contribute to these impacts include vegetation treatments (including fire management), agricultural leases, construction-related activities, mining activities, and recreation. Under all alternatives, the impacts as stated would be avoided or minimized to the maximum extent possible by BMPs and Management Actions, including those defined in specific Pesticide Use Proposals under recommendation from the Vegetation Treatment on BLM Lands in Thirteen Western States EIS and subsequent Vegetation Treatment EIS, upon signature.

The analysis of potential impacts to water resources was based on review of existing literature and the expertise of BLM resource specialists at the YFO. Literature sources include, but are not limited to, the following:

- Recommendations to address Colorado River Quality by the Clean Colorado Alliance, January 2006;
- American Rivers Report; and
- LCR MSCP, *Final Programmatic EIS/Environmental Impact Report,* 2004.

A. DIRECT AND INDIRECT IMPACTS

Potential impacts to water resources are categorized below as those resulting in changes in water quality and sedimentation/turbidity.

1. Water Quality

a. From Vegetation Resource Management

Aquatic and terrestrial vegetation control using herbicides have the potential for adverse impacts to surface and groundwater resources; however, all vegetation treatments follow standard operating procedures and would be analyzed on a case-by-case basis.

Most of the impacts from fire on water quantity and quality ultimately result from destruction of vegetation and soil litter. Destruction of vegetation and litter can affect water in several ways, including decreased soil stability, leading to increased erosion of upland soils during rainstorms and to loss of bank stability along streams. The ultimate effect is increased loadings of solutes, suspended solids, and bedload to surface waters, which adversely affect water quality and aquatic flora and fauna. Effects of fire on water quality are generally of short duration, lasting only until vegetation is reestablished on a burned area.

b. From Recreation Management

Large concentrations of recreationists in areas near the Colorado River or other surface water bodies in the planning area could result in increased quantities of nitrates from human waste in surface and groundwater (American Rivers 2004).

Boats with internal combustion engines produce relatively invisible wastes that can concentrate with increased boat traffic to toxic levels both in the air and water. Boating access from existing facilities may cause both short- and long-term impacts to water quality due to beaching and loosening of bank side sediments.

Maintenance and installation of restroom and garbage facilities would likely have beneficial long-term impacts on water resources by reducing the effects of visitor use on surface and groundwater quality.

c. From Lands and Realty Management

Shallow aquifers in the planning area could be impacted by construction activities associated with ROWs and other land use authorizations. These potential impacts include changes in overland flow and recharge caused by clearing and grading in construction areas (USDOI BLM 2002b).

d. From Mineral Resource Management

Mining activities in arid ecosystems could result in the alteration of the water regime and depletion of groundwater depending on the type and intensity of mining. These impacts may result in increased erosion of soils. Erosion could lead to indirect effects of decreased productivity of vegetation leading to a decrease in forage for wildlife species.

Mining activities could lead to the unauthorized disposal of metals and acidic chemicals that have the potential to leach into the groundwater.

2. Sedimentation / Turbidity

a. From Recreation Management

Boating access from existing facilities may cause both short- and long-term impacts to water quality due to beaching and loosening of bank side sediments. Construction of facilities to support recreation activities could alter drainage patterns in a manner that could result in erosion or siltation in the vicinity of surface waters.

b. From Lands and Realty Management

Impacts from grading, excavating, and dredging activities associated with ROW Corridors, and other land use authorizations may result in localized soil erosion and sedimentation of the lower Colorado River (USDOI BLM 2005e), which in turn would impact water quality by increasing sediments and turbidity.

Construction activities, including development of ROWs within corridors in the planning area could alter the existing drainage patterns in construction areas in a manner that would result in erosion or siltation (USDOI Reclamation et al. 2004). Any improvements that would occur below the ordinary high water mark of the Colorado River, tributary washes or wetlands require a permit from the U.S. Army Corps of Engineers and impacts would be mitigated on a case-by case basis.

Construction activity impacts on dry washes would typically be limited to temporary alteration of beds and banks, loss of wildlife habitat, and possibly increased sediment load during initial storm events following construction (USDOI BLM 2002b).

B. DIFFERENCES BETWEEN ALTERNATIVES

Differences in impacts to water resources between alternatives differ by number of acres open to mineral developments, agricultural leases, and grazing, however they are insignificant and minimal overall.

C. UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts would potentially occur as a result of uncontrollable natural events (e.g., floods and storm events) that could increase turbidity, siltation, and sediment loads in the planning area. Similar unavoidable impacts would potentially occur as a result of non-discretionary activities of cooperators or co-managers of BLM-administered lands.

4.2.3 SOIL RESOURCES

Soil resources in the planning area included sensitive soils such as desert pavements, cryptobiotic soil crusts, and prime and unique farmlands. Both beneficial and adverse impacts to each of these types of soil resources may occur from vegetation treatment activities, land use authorizations (including ROWs, leases, and development), mineral/mining development, recreation, and OHV use. Soils within the planning area are susceptible to impacts from compaction, disturbance, and invasion by non-native plant species. Natural erosion occurs in the washes and tributaries throughout the planning area as a result of large storm events. Natural erosion of soil resources occurs throughout the planning area throughout the year. Under all alternatives, the impacts as stated would be avoided or minimized to the maximum extent possible by BMPs and Management Actions.

The analysis of potential impacts to soil resources was based on review of existing literature and the expertise of BLM resource specialists at the YFO. Literature sources include, but are not limited to, the following:

- Environmental Assessments for BLM Grazing Allotments: Dateland, Quartzsite, and Vicksberg, Yuma, Arizona 2003;
- Biological Soil Crusts: Ecology and Management, Technical Reference 1730-2, USDOI BLM and USGS 2001;
- *Preliminary Assessment of Biodiversity Values and Management Framework Adaptation for the Expanded Kofa Complex and Yuma Resource Management Area in Southeastern Arizona,* Weinstein et al. 2003;
- *Anthropogenic Degradation of the Southern California Desert Ecosystem and Prospects for Natural Recovery and Restoration,* Lovich and Bainbridge 1999; and
- LCR MSCP, *Final Programmatic EIS/Environmental Impact Report,* 2004.

A. DIRECT AND INDIRECT IMPACTS

The potential impacts to soil resources are categorized below as those resulting in compaction, erosion, and loss of productivity.

1. Compaction

a. From Vegetation Resource Management

Prescribed fires and mechanical fuel reduction treatments that require the use of heavy equipment could increase soil compaction, especially following rain events which leave soils susceptible to disturbance.

b. From Recreation Management

Concentrated visitor use of designated camping and day-use areas, along with the installation of recreation facilities and signs, results in increased soil disturbance, and compaction which in turn can increase erosion and/or severely limit soil productivity. The concentration of visitor use and their associated impacts to soils is normally preferred over allowing high levels of dispersed visitor use to continue impacting a wider area. As the population in the planning area continues to increase, recreational activities on BLM-administered lands are also likely to increase, which would result in additional impacts to soil resources.

c. From Travel Management

Hiking, biking, equestrian, and OHV trail use disturb and compact sensitive desert soils such as desert pavements and cryptobiotic soil crusts, which in turn results in increased wind and water erosion, and can change soil chemistry (Belnap et al. 2001; Green 2005; Weinstein et al. 2003; Lovich and Bainbridge 1999).

d. From Lands and Realty Management

Soil compaction and erosion would occur during surface-disturbing activities associated with construction and maintenance of authorized facilities at project-specific locations. Clearing, grading, and heavy equipment uses can accelerate the erosion process by disturbing soil and soil retaining vegetation, and without adequate protection, result in discharges of sediment to wetlands and water bodies. Such a process can decrease soil fertility by removing essential organic material and soil organisms from a site (USDOI BLM 2002b).

Heavy construction vehicles could cause near-surface soil compaction which could have localized impacts to the soils' ability to absorb water (USDOI BLM 2002b).

2. Erosion

a. From Vegetation Resource Management

Vegetation treatments include manual, biological, mechanical, fuel breaks, herbicide application, and prescribed fire. Vegetation management treatments could result in the temporary disturbance to soil resources. The direct impact of these actions would include effects on erosion, soil permeability, and soil fertility. Disturbances are anticipated to be minimal and would impact only a small percentage of the planning area.

Prescribed fires and mechanical fuel reduction treatments would directly impact soil by increasing erosion rates due to fireline construction or road building, especially on steeper slopes.

Restoration projects potentially benefit local conditions in the long-term by improving watershed cover, increasing soil retaining vegetation, and reducing erosion potential.

b. From Livestock Grazing Management

Long-term environmental consequences of present management are maintenance or a slow improvement of upland soil and watershed conditions due to implementation of Land Health Standards and Guidelines for Grazing Administration, and restoration efforts. These beneficial effects derive from improved vegetation conditions and increased amounts of plant litter that provide watershed cover and decrease soil compaction, resulting in reduced erosion, sedimentation, and runoff. Management that achieves proper utilization of key forage species ensures adequate cover to maintain appropriate watershed conditions and reduce soil loss through wind and water erosion.

c. From Recreation Management

See discussion above under impacts to soil compaction.

d. From Travel Management

Disturbances to sensitive soils caused by OHV use could lead to degradation of desert pavements and cryptobiotic soil crusts, which in turn could result in surface erosion, water runoff, changes in soil chemical properties, exotic plant germination and establishment, and changes in plant density (Belnap et al. 2001; Green 2005; Weinstein et al. 2003). OHV travel in Open OHV Management Areas would have moderate adverse impacts to soil erosion from disturbance to sensitive soils and removal of existing ground cover, making soils more susceptible to erosion from both wind and water. However, the Ehrenberg Sandbowl is an unstabilized dune, which is not a sensitive soil type and is located at the edge of the mesa, which will result in minimal erosion to the soil surface in the watershed. The concentration of OHV use in the Sandbowl mitigates some impacts on other areas with sensitive soils by directing the use to this area.

OHV travel within Limited OHV Management Areas should not increase the adverse impacts because travel would be limited to existing inventoried routes. However, impacts may increase in intensity from compaction in wheel troughs resulting in channelization. Channelization can modify drainage patterns of a watershed and increase velocity of surface waters during rain events, resulting in an increase of erosion.

Closed OHV Management Areas protect soil resources by precluding motorized travel, thereby reducing soil compaction and erosion rates from OHV use.

Desert pavement found throughout the planning area provides a smoother surface for vehicle travel. With vehicle use, desert pavement breaks down to fine-grained materials, which are extremely susceptible to wind-blown erosion from which active sand-dunes can begin to form. Once a road becomes unusable, drivers move off of the original road and onto adjacent undisturbed desert pavement, which eventually breaks down. As a result, many areas of desert

pavement terrain are bisected by braided roads. A similar process affects cryptobiotic crusts, which become erodable with vehicle compaction.

The effects of motorized travel on poorly constructed routes include the removal of surface cover such as larger rocks, which creates new water flow paths and channels and increased runoff. This contributes to increased soil erosion rates and an ultimate loss of soil productivity within the route. Because this RMP is deferring the designation of routes, the impacts to soils from poorly constructed routes appearing in the route inventory would continue under Alternatives B, C, D, and the Proposed Plan.

3. Loss of Productivity

a. From Vegetation Resource Management

Loss of soil productivity is anticipated to be minimal and would impact only a small portion of the planning area. Chemical treatments may leave residues that could alter the soil's microbial populations or vegetative recovery, affecting the productivity of the soil and increasing its vulnerability to erosion. However, chemical treatments are conducted using BMPs for chemical application to minimize potential adverse impacts to vegetation and soil resources in the planning area.

b. From Livestock Grazing Management

Short-term adverse impacts are possible where watershed cover is not adequate due to current livestock management. Livestock grazing has been limited in the planning area, resulting in relatively minimal impacts to soils from this activity (USDOI BLM 2003b, 2003c, 2003d).

c. From Wild Horse and Burro Management

Management actions in the planning area related to wild horses and burros would continue to have a minimal impact on soil resources. Wild horses and burros have the potential to compact soil near common watering sites or travel corridors which could decrease productivity.

d. From Visual Resource Management

VRM Class I and II areas allow minimal impacts to soil resources because of the limits placed on visual contrast in these areas.

e. From Lands and Realty Management

Agricultural Leases: In the event that BLM agriculture leases are terminated and identified for other beneficial uses including the conversion to wildlife habitat, BLM would follow provisions required by the Farmland Protection Policy Act, which determine impacts to farmland that would occur due to proposed projects.

f. From Mineral Resource Management

Development of mineral resources on BLM-administered lands would result in the loss of soil resources through loss of vegetation and surface disturbance. Impacts to soils result from mineral materials extraction, sand and gravel operations, and mining activities due to a lack of topsoil within the planning area (Weinstein et al. 2003).

B. DIFFERENCES BETWEEN ALTERNATIVES

Differences between the alternatives are limited to the potential loss of productivity, as measured by acres of surface disturbance resulting from BLM-authorized actions, as shown in Table 4-3.

Table 4-3
Potential Impacts to Soil Resources by Alternative

Cause Agents	Alternative				
	A	B	C	D	E
Adverse Impacts					
Betty's Kitchen NRT (miles)	0.5	5.5	0.5	0.5	0.5
Back Country Byways (miles)	0	220	76	0	21
Communications Sites (acres)	200	300	300	200	300
Community Pits (acres)	100	800	400	100	700
Open OHV Management Areas (acres)	400	3,800	2,400	400	400
ROW Corridors (acres)	74,600	129,900	129,900	91,300	121,700
VRM Class III & IV (acres)	1,135,000	608,400	589,100	500,800	531,600
Total Acres*	1,135,200	638,600	624,000	513,100	568,500
Beneficial Impacts					
ACECs	6,700	6,700	28,900	491,300	28,900
Closed OHV Management Areas (acres) (non-wilderness)	1,200	3,200	3,500	66,000	5,100
VRM Class I (acres) (non-wilderness and not proposed for withdrawal)	0	0	0	19,800	0
Wilderness (acres)	167,800	167,800	167,800	167,800	167,800
Withdrawal acres (non-wilderness)	6,500	3,600	5,400	8,300	12,000
Total Acres	175,500	174,600	176,700	266,700	184,900

Note: Acreage totals include BLM-administered acres only
* Non-overlapping total

1. From Special Designations

The 5.0-mile extension of the Betty's Kitchen NRT proposed under Alternative B would temporarily disturb soils during trail construction activities. Maintenance of the proposed trail would cause a permanent loss of soil productivity along the entire length and width of the trail; however, approximately half of the trail's length would be located on an existing route and would not create entirely new impacts to soils.

Alternative B would nominate seven Back Country Byways (220 miles). Under Alternative C, four Back Country Byways (76 miles) would be nominated, and two would be nominated in the Proposed Plan (21 miles). Alternatives A and D propose no Back Country Byway designations. Vehicle pullouts would generally be small in nature, located at pre-disturbed sites as much as possible, and would follow construction BMPs to minimize potential impacts to soils. A beneficial effect of reducing erosion to the landscape could occur by focusing vehicle travel onto the byways. Under Alternative C, increased traffic on Type III and Type IV segments could eventually lead to erosion of these unimproved roads. Management Actions would reduce this

effect by monitoring site conditions and making improvements that would keep the segment at the designated type.

Alternative D would designate a total of 491,400 acres as ACECs, which could indirectly benefit soil resources due to the protective nature of the ACEC designations. For example, in an ACEC, protective management actions discourage land-use authorizations, require special mitigation to avoid impacts from mineral entry if applicable, and commercial grazing would not be allowed. Alternative B would designate 6,700 acres of ACECs, which is also the same under the existing condition in Alternative A. Alternative C and the Proposed Plan would designate 28,900 acres of ACECs. Indirect adverse impacts to soils from ACECs could potentially result from an increase of visitation to these areas because of their attractive resources.

2. From Visual Resource Management

VRM allocations can avoid adverse impacts to soil resources from some activities, as they specify the allowable amount of modification to the existing environment in order to maintain the natural aesthetic quality of the area. VRM Classes I and II allow little or no modification (i.e. construction of facilities, communications sites, or utilities structures), unless already within an existing ROW or corridor. This limitation would avoid adverse impacts to soils from these types of activities. VRM Classes III and IV allow modifications to the existing environment, potentially resulting in adverse impacts to soils (see Table 4-3).

3. From Recreation Management

Under Alternative D, the YFO would not expand or develop any new recreation sites, and the impacts to soil resources would be contained to the 20,500 acres of existing recreation sites. Under Alternatives A, B, C, and the Proposed Plan, the YFO would use adaptive management on a case-by-case basis to determine if the expansion or development of new recreation sites is necessary to meet public demands or address user and resource conflicts. Additional impacts to soil resources from new and expanded recreation sites would be considered and disclosed as required by NEPA during the development of subsequent recreation site activity plans.

4. From Travel Management

In Open OHV Management Areas, motorized travel is currently not limited to existing or inventoried routes, and visitors may travel cross-country wherever they choose. OHV area designations would impact the least amount of soil resources under Alternatives A, D and the Proposed Plan, which would continue the existing 400-acre Open OHV Management Area designation at the Ehrenberg Sandbowl. Two additional Open OHV Management Areas have been proposed under Alternatives B and C along with an expanded Open OHV Management Area designation at the Ehrenberg Sandbowl. Under these alternatives, there would be increased acreages of lost soil productivity within the planning area, as represented in Table 4-3.

Motorized travel would not be authorized within proposed Closed OHV Management Areas, and additional soil erosion and compaction from OHV use would no longer occur. OHV closures would remain in effect within the planning area's 167,800 acres of designated Wilderness under all alternatives. Soil resources would be provided with the most protection from OHV use under Alternative D, which would designate approximately 66,000 acres as Closed OHV Management Areas. The remaining four alternatives propose fewer acres of Closed OHV Management Areas, which are all listed on Table 4-3. Closures were proposed to protect resource values within

ACECs, SCRMAs, and lands with wilderness characteristics and soil resources would indirectly benefit from these allocations. Alternatives B and C would provide less protection to soil resources from OHV use, as these alternatives only propose to close 3,200 and 3,500 additional acres, respectively. Under the Proposed Plan, approximately 5,100 acres of public land outside of designated Wilderness have been proposed to be closed to motorized travel.

Under Alternatives B, C, D, and the Proposed Plan, OHV travel throughout most of the planning area would be limited to existing inventoried routes. There are currently 4,600 miles of existing inventoried routes and linear features within the planning area. The YFO has estimated that the routes are an average of eight feet wide, which collectively totals to 4,400 acres of routes (or 0.0034 percent of the planning area), which are negatively impacting soil resources. On BLM-administered lands, there are currently 12 miles of closed routes in Alternative A (Fortuna Wash and La Paz Valley), Alternative B would close 12 miles of routes (La Paz Valley and Muggins Mountains) , Alternative C would close 14 miles (Dripping Springs, La Paz Valley, and Muggins Mountains), Alternative D would close 491 miles of routes (Dripping Springs, Laguna Mountains, La Paz Valley, Muggins Mountains, North Bank Milpitas Wash, Sears Point, and proposed lands with wilderness characteristics), and the Proposed Plan would close 20 miles (Dripping Springs [Spur Route LP 1087 only], Fortuna Wash, La Paz Valley, Muggins Mountains, and Sears Point).

This PRMP/FEIS is deferring the overall designation of routes. Recreational trail use would continue to impact 4,400 acres of soil resources under Alternatives A, B, C, D, and the Proposed Plan. Under Alternative A, motorized travel would continue to be limited to existing inventoried routes. It is possible that there are additional existing routes which have not been identified on the proposed YFO route inventory, and therefore, a slightly higher acreage of soil resources would continue to be impacted under Alternative A.

5. From Lands and Realty Management

In the range of alternatives in this PRMP/FEIS, lands actions would impact soils differently primarily by the concentration of ROWs within designated corridors. Land use authorizations that include construction and maintenance of facilities such as transmission lines, pipelines, and roads would impact soils due to removal of vegetation, compaction, erosion, and disturbance of topsoil and soil crusts. Within ROW Corridors, this impact would potentially be increased due to the concentration of major utilities and facilities; however, these impacts would be the result of individual ROWs. The greatest number of ROW Corridors being proposed are under Alternatives B and C (10 corridors). Alternative A would have the least impact, with only four existing ROW Corridors, while Alternative D proposes five, and the Proposed Plan proposes eight.

a. Agricultural Leases

Under the Proposed Plan, some of the lands currently under agricultural production are available for disposal. These lands are surrounded by private farmlands. The disposal of these lands has the potential to permanently remove them from agricultural production based on the intent of the buyer, which creates uncertainty over potential impacts.

6. From Mineral Resource Management

No new mineral material sales would be allowed in designated ACECs. Soil loss and erosion may be minimized with proper reclamation in areas where mineral entry is allowed as part of the BMPs for mineral development. There are currently 6,500 acres withdrawn from mineral entry (Alternative A). Alternative B would withdraw 3,600 acres, while Alternative C proposes to withdraw 5,400 acres from mineral entry. Alternatives D would withdraw 8,300 acres and the Proposed Plan would withdraw 12,000 acres within proposed ACECs from mineral entry. Common to all of these alternatives is the congressional withdrawal of Wilderness Areas which consist of 167,800 acres. If an ACEC is approved and the area is withdrawn from mineral entry, the impacts to soils from mineral development in this area would be avoided. Alternatives D or the Proposed Plan would have the least impact on soil resources, while Alternative B would have the greatest impact.

7. From Wilderness Characteristics Management

The BLM would seek to maintain existing opportunities to experience naturalness within lands that have been identified for wilderness characteristics management. The maintenance of naturalness on these public lands would be accomplished through the relocation, mitigation, or restoration of authorized surface-disturbing activities. These measures may result in the maintenance and/or improvement of soil resource values. Public lands that have been identified to maintain wilderness characteristics where indirect beneficial impacts to soil resources may occur vary by alternative as follows: Alternative A, 0 acres; Alternative B and the Proposed Plan, 48,400 acres; Alternative C, 91,400 acres; and Alternative D, 301,200 acres.

C. UNAVOIDABLE ADVERSE IMPACTS

Natural events such as high winds and thunderstorms would continue to erode soils potentially leading to loss of productivity.

4.3 VEGETATION RESOURCES

Vegetation resources within the planning area include terrestrial, aquatic, riparian and wetlands, priority, and special status plant species. Both beneficial and adverse impacts may occur from vegetation treatment activities, land use authorizations (including ROW Corridors, leases, and development), surface-disturbing activities, mineral/mining development, recreation, and OHV use. These activities generally lead to disturbance, degradation, and loss of vegetative resources in the planning area as well as the introduction of exotic and invasive species. Impacts to vegetation resources, including special status and priority plant species, as a result of vegetation treatments and surface-disturbing activities would be assessed on a case-by-case basis and would follow Management Actions and BMPs (outlined in Chapter 2).

The analysis of potential impacts to vegetation resources was based on review of existing literature and the expertise of BLM resource specialists at the YFO. Literature sources include but are not limited to the following:

- *Preliminary Assessment of Biodiversity Values and Management Framework Adaptation for the Expanded Kofa Complex and Yuma Resource Management Area in Southwestern Arizona* (Weinstein et al. 2003);
- LUP *Amendment for Fire, Fuels, and Air Quality Management* (USDOI BLM 2004c);
- *Anthropogenic Degradation of the Southern California Desert Ecosystem and Prospects for Natural Recovery and Restoration* (Lovich and Bainbridge 1999);
- LCR MSCP, *Final Programmatic EIS/Environmental Impact Report* (USDOI Reclamation et al. 2004);
- Heritage Data Management System (AGFD 2005);
- *Arizona Rare Plant Guide* (Arizona Rare Plant Committee 2003); and
- *Final Propgrammatic EIS and Record of Decision for Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States* (USDOI BLM 2007a).

4.3.1 DIRECT AND INDIRECT IMPACTS

Potential impacts to vegetation resources are categorized below into loss/removal, degradation/alteration, and enhancement/beneficial.

A. LOSS/REMOVAL

1. From Vegetation Resource Management

Vegetation treatments include manual, biological, mechanical, fuel breaks, herbicide application, and prescribed fire. YFO staff has estimated that vegetation treatments for wildland fire management would collectively total an average of 1,000 acres of terrestrial vegetation per year. Vegetation management treatments would result in the temporary loss of aquatic and riparian vegetation depending on the treatment applied. These losses are anticipated to be minimal and would impact only a small percentage of the planning area. Some losses of vegetation would be of undesirable plant species including exotic and invasive species, which are treated to reintroduce or promote desirable plant species. Impacts from these treatments are beneficial in both the short and long-term.

2. From Travel Management

Within designated Open OHV Management Areas, motorized travel would not be limited to existing or inventoried routes, and visitors may travel cross-country wherever they choose. Increased trampling of vegetation would be expected and degradation of vegetative productivity would be anticipated within the entire acreage of the proposed Open OHV Management Areas. A minimal amount of additional impacts to vegetation resources are expected within Closed and Limited OHV Management Areas where motorized travel would either not be permitted or limited to existing inventoried routes, respectively.

3. From Lands and Realty Management

Temporary losses of vegetation resources would occur during surface-disturbing activities associated with construction and maintenance of authorized facilities. These activities include, but are not limited to, grading, trench excavation, clearing, and/or removal of existing vegetation. Permanent loss of vegetation may occur when access roads needed to maintain authorized facilities are constructed. Proposed ROW Corridors occur within the habitat of two special status plants, the scaly sand plant and Schott wire lettuce (*Stephanomeria schottii*). These plants, if present, could be impacted during the construction of approved activities within ROW Corridors.

Disposal of public lands may cause long-term or permanent impacts to vegetation, special status and priority species, through alteration or development of those lands. The blue sand lily could be impacted by a proposed disposal under Alternative B and the Proposed Plan. Sand food is found on Reclamation's "five-mile zone." Dune spurge (*Euphorbia platysperma*) could be present along ROW Corridors. Potential development of disposed lands may indirectly impact vegetation or wildlife habitat on adjacent public lands due to increased human pressure on the undeveloped lands. Indirect impacts would include potential degradation of vegetation habitats that are on the fringes of associated lands identified for disposal.

4. From Mineral Resource Management

Development of mineral resources may result in the loss of vegetation resources. In each proposed mineral development, a subsequent NEPA analysis or mining notice is required, which would evaluate the potential impacts on a case-by-case basis.

B. DEGRADATION / ALTERATION

1. From Vegetation Resource Management

Vegetation treatments occurring in habitat for priority species, which occur throughout the planning area, may impact those species.

Treatment of non-native invasive species may include short-term impacts including both adverse and beneficial impacts on native vegetation resources, e.g., herbicide overspray or inadvertent mechanical removal of non-target native species. Some impacts are immediately beneficial because of a reduction in competition for native species from the removal of invasive species. Treatment of non-native invasive species would also impact species composition, resulting in a beneficial alteration of the immediate plant community.

Firewood collection, if not monitored, would result in direct and indirect adverse impacts to vegetation resources. Firewood collection associated with recreational activities removes nutrients and microclimates which provide for desert plant growth and seed germination (Weinstein et al. 2003).

2. From Wildland Fire Management

Use of heavy equipment and the mechanical thinning of trees may generate emissions of criteria pollutants and fugitive dust. Dust blowing across landscapes coats the leaves of established species resulting in the short-term degradation of some vegetation. Clearing of fuel breaks in

riparian areas may have negative impacts to native riparian vegetation. However, fuel breaks are generally placed in salt cedar areas to reduce chances of fire spread into higher value riparian and wetland vegetative types. Prescribed burns could result in short-term adverse impacts to desired plant species, although most of these treatments are applied in plant communities which exhibit uncharacteristic fuel loads or undesirable plant species, resulting in beneficial long-term impacts to vegetation resources.

3. From Recreation Management

Concentrated visitor use of designated camping and day-use areas, along with the installation of recreation facilities and signs, results in increased soil compaction and erosion, increased trampling of vegetation, and increased dispersal of non-native invasive species. These impacts can severely limit vegetative productivity within designated recreation areas. As the population in the planning area continues to increase, recreational activities on BLM-administered lands are also likely to increase, which would result in additional degradation and/or alteration of vegetation resources from unauthorized route usage, and increases of invasive seed carriers. These activities could result in trampling or degradation of native sensitive plant species, and introductions of invasive species in native plant communities.

Recreational boating activities could result in impacts to aquatic and shoreline vegetation resources. Wakes can suspend bottom sediment, uproot submerged aquatic vegetation, and erode shorelines (USDOI BLM 2005g). The enforcement of existing "No Wake Zones" regulations within these areas would continue to minimize these potential impacts to aquatic vegetation from water-based recreation activities. Recreational boaters can also inadvertently introduce and spread non-native invasive aquatic vegetation into fresh water ecosystems, which can result in the displacement of native aquatic species. Dispersed shoreline camping, use of boat ramps and piers can result in increased rates of soil erosion, which can also have detrimental impacts to terrestrial and aquatic vegetation.

BLM's commitment to providing safe and dependable public boating access necessitates the periodic dredging of collected sediments around boat launches. Dredging activities can result in the degradation or removal of aquatic vegetation.

4. From Travel Management

Hiking, biking, and equestrian use disturb and compact fragile desert soils, which in turn results in increased wind and water erosion, and changes in soil chemical properties (Belnap et al. 2001; Green 2005; Weinstein et al. 2003). These impacts to soils indirectly impact vegetation resources by damaging the wide and shallow root systems of desert plants and preventing the germination of seedlings. Recreational trail use also increases the likelihood of introducing non-native invasive vegetation, which can displace native species (Lovich and Bainbridge 1999).

OHV use on existing inventoried routes is considered the main threat to the Dunes WHAs within the planning area (Weinstein et al. 2003). Sand dunes are popular places to participate in OHV use, and this activity has the potential to disturb vegetation and their shallow root systems. Stabilized dunes are easily eroded when driven across. These impacts degrade the overall quality of the Dunes WHA, which could potentially provide habitat for endemic species, such as the fringe-toed lizard.

5. From Lands and Realty Management

Surface-disturbing activities can facilitate the dispersal and establishment of invasive plant species. The clearing of existing perennial vegetation provides an opportunity for non-native invasive species to populate construction sites, and the movement of equipment in the area could disperse these plants to other locations (USDOI BLM 2002b). Heavy equipment could increase soil compaction, slowing the re-establishment of vegetative cover. Management actions and BMPs are implemented on a case-by-case basis to deter the introduction and spread of non-native invasive plants.

6. From Public Health and Safety

Law enforcement activities may necessitate OHV use and cross-country travel, which may impact vegetation and increases fire occurrence. Illegal immigration traffic results in degradation of vegetation resources.

C. ENHANCEMENT/BENEFICIAL

1. From Special Designations

Land use allocations and designations that provide increased protections, such as Wilderness, ACECs, WHAs, and VHAs, would result in beneficial impacts to vegetation resources by providing increased protection to these resources.

2. From Vegetation Resource Management

Restoration projects such as prescribed burning and post-fire seeding and revegetation potentially benefit vegetation resources. Invasive species management treatments (goat grazing as a biological control agent) produce long-term beneficial impacts to native vegetation by reducing competition with native species for limited desert resources. Long-term effects would improve growth of native plant species. Vegetation treatments are expected to increase the density and quality of the native riparian plant communities. The use of native plant species when restoring or rehabilitating disturbed or degraded areas would result in reestablishment of native plant communities and other beneficial impacts

3. From Livestock Grazing Management

Adherence to Arizona Standards for Rangeland Health and Guidelines for Grazing Administration would result in beneficial direct impacts to terrestrial and riparian vegetation by reducing soil erosion and promoting the development of riparian and wetland plant communities. Adhering to these standards and guidelines would have positive long-term impacts to biological resources by maintaining the ecological rangeland condition for those areas currently in healthy condition and by improving those areas that are currently not meeting existing standards, ultimately improving priority plant and wildlife habitat. Management that achieves proper utilization of key forage species ensures adequate cover to maintain appropriate watershed conditions and reduces soil loss through wind and water erosion. Long-term environmental consequences of present management would be maintenance or a slow improvement of upland soil and watershed conditions due to implementation of rangeland health standards and guidelines and restoration efforts.

4. From Travel Management

Motorized travel would not be permitted within Closed OHV Management Areas, which would maintain or enhance terrestrial vegetative productivity within these areas.

5. From Visual Resource Management

VRM Class I and II areas allow minimal impacts to vegetation resources because of the limits placed on visual contrast in these areas. These limitations reduce BLM-authorized surface disturbing activities within the area, which allow plant communities to remain intact.

4.3.2 DIFFERENCES BETWEEN ALTERNATIVES

Alternatives B and C would result in an increase in potential impacts to vegetative resources from BLM-authorized surface disturbance activities, as compared to the No Action Alternative (Alternative A) (Table 4-4), because more proposals that cause surface disturbance are included under these alternatives. Implementation of the Proposed Plan would result in fewer impacts from BLM-authorized surface disturbing activities than Alternatives B and C, but the Proposed Plan would have more impacts than Alternatives A and D. Alternative D would result in only a slight increase of impacts, as compared to the No Action Alternative (A).

Table 4-4
Potential Impacts to Vegetative Resources (BLM acres)

Loss/Degradation	Alternative				
	A	B	C	D	E
Adverse Impacts					
Communications Sites	200	300	300	200	300
Community Pits	100	800	400	100	700
Land Disposals	19,100	46,900	10,500	8,200	11,900
Open OHV Management Areas	400	3,800	2,400	400	400
ROW Corridors	74,600	129,900	129,900	91,300	121,700
Total Acres*	94,400	178,500	143,500	103,700	134,600
Beneficial Impacts					
ACECs	6,700	6,700	28,900	491,400	28,900
Closed OHV Management Areas (non-Wilderness)	1,200	3,200	3,500	66,000	5,100
Firewood Collection	134,700	142,800	179,300	1,318,000	153,000
VHA	12,400	0	12,400	22,900	22,900
Wilderness	167,800	167,800	167,800	167,800	167,800
Wilderness Characteristics	0	48,400	91,400	301,200	48,400
Total Acres*	318,000	360,600	426,900	1,318,000	395,000

Note: Acreage totals include BLM-administered acres only
* Non-overlapping total

Alternatives B, C, D, and the Proposed Plan include an increase in protective land use allocations and designations, such as Closed OHV Management Areas, SCRMAs, and ACECs. All alternatives include management of invasive non-native plant species and firewood collection closures to minimize adverse impacts to vegetation resources. Alternative D and the Proposed Plan would also include three proposed VHAs to provide additional protection to priority plant

species, specifically for elephant tree and blue sand lily communities, and for the Fred J. Weiler Greenbelt riparian habitat (see Chapter 2, Table 2-4).

A. FROM SPECIAL DESIGNATIONS

The Betty's Kitchen NRT is proposed to be extended approximately five miles under Alternative B. While approximately half of the proposed trail length would follow an existing route, construction of the trail would require the removal of both terrestrial and riparian vegetation. Subsequent site-specific NEPA analysis and coordination with AGFD would ensure that future trail layout and design minimizes impacts to vegetation as much as possible.

Alternative B would consider nominating the most miles of National Back Country Byways (seven byways, 220 miles). Byways have the potential to cause losses of roadside vegetation if improvements such as signs or pullouts are constructed. These actions would be evaluated for impacts to vegetation on a case-by-case basis.

Alternative D would designate seven ACECs (491,400 acres), which would have a positive benefit to vegetative resources due to the protective measures they would afford. In Alternative D, the proposed Sears Point, Dripping Springs, Limitrophe, Walters Camp, Gila River Terraces and Trails, and Palomas Plain ACEC designations would protect high value riparian, desert washes, and mesquite bosques and prioritize vegetation management treatments for these areas, in greater acreages than the other alternatives. Big Marias ACEC is primarily upland desert with low vegetative productivity.

B. FROM VEGETATION RESOURCE MANAGEMENT

1. Vegetation Habitat Management Areas

The Elephant Tree Community (10,000 acres) and Blue Sand Lily Community (500 acres) VHAs are both proposed under Alternative D and the Proposed Plan. The Elephant Tree Community VHA allocation would benefit the health of this unusual plant community and support designation of the shrub as a conservation element by The Nature Conservancy. The Blue Sand Lily VHA would protect one of the few known localities for this species north of Mexico. Protective measures could have a positive impact on the population within BLM-administered lands which is threatened by housing development, OHV use, and invasive non-native species such as Sahara mustard. The Fred J. Weiler Greenbelt (12,400 acres) is a proposed VHA in Alternatives A, C, D, and the Proposed Plan to beneficially impact riparian values as a Resource Conservation Area.

2. Vegetative Use Authorizations

The collection of personal use campfire wood from dead, down, and detached vegetation would vary by alternative. Alternative D would close the entire planning area from collection of dead and downed wood, which is valuable wildlife habitat. Alternatives A, B, C, and the Proposed Plan would allow adaptive management to evaluate whether areas are being denuded of dead, down, and detached vegetation. Portions of the planning area are currently closed and would remain closed to wood collection in the foreseeable future.

C. FROM WILDLAND FIRE MANAGEMENT

The Arizona Fire LUP Amendment decisions would be carried forward, which are common to all alternatives. Full suppression of wildland fires would be used to protect WUI areas, riparian areas, natural and cultural resources. No "fire use" areas are currently identified in the planning area, meaning that there are no areas where wildfires are allowed to burn to treat vegetation resources. Prescribed fire would be a management tool for cattail marshes in all alternatives.

D. FROM FISH AND WILDLIFE MANAGEMENT

1. Wildlife Habitat Management Areas

The Proposed Plan would create five WHAs (1,526,200 acres [overlapping acres]), all of which would have beneficial impacts to vegetation including priority and special status plants. The acreage of WHAs exceeds the total acreage within the planning area because some of these proposed WHAs overlap. The Colorado and Gila River Riparian WHA would protect cottonwood and willow priority plant species and other native riparian plants and habitats. The Dunes WHA contains sensitive and priority plants such as scaly sand plant and sand food which would be afforded protection under Alternatives C, D, and the Proposed Plan.

E. FROM RECREATION MANAGEMENT

Under Alternative D, BLM would not expand or develop any new recreation sites, and the impacts to vegetation resources would be contained to the existing recreation sites located on desert lands which support these native plants. Under Alternatives A, B, C, and the Proposed Plan, adaptive management would be used on a case-by-case basis to determine if the expansion or development of new recreation sites would be necessary to meet public demands or address user and resource conflicts. Additional impacts to terrestrial vegetation from new and expanded recreation sites would be considered and disclosed as required by NEPA during the development of subsequent recreation site activity plans.

Under Alternative D, impacts to riparian and wetland vegetation would be contained to approximately 500 acres of existing recreation sites located near riparian and wetland ecosystems. Under Alternatives A, B, C, and the Proposed Plan, adaptive management would be used on a case-by-case basis to determine if the expansion or development of new recreation sites would be necessary to meet public demands or address user and resource conflicts. Additional impacts to riparian and wetland vegetation from new and expanded recreation sites would be considered and disclosed as required by NEPA during the development of subsequent recreation site activity plans.

F. FROM TRAVEL MANAGEMENT

The proposed Martinez Lake Open OHV Management Area would negatively impact 16 acres of riparian vegetation under Alternative B. Under Alternatives A, C, D, and the Proposed Plan there would be no impacts to riparian vegetation from Open OHV Management Area designation.

Under Alternatives B, C, D, and the Proposed Plan, motorized travel would be limited to inventoried routes. There are currently 4,600 miles of existing inventoried routes and linear features within the planning area's terrestrial ecosystems. YFO has estimated that these routes are an average of eight feet wide, which collectively covers 4,400 acres of public lands, or less than one percent of all BLM-administered lands in the YFO. Motorized travel on these routes precludes significant vegetative productivity on approximately 4,250 acres of terrestrial ecosystems and approximately 150 acres of riparian ecosystems. Under Alternative A, motorized travel would continue to be limited to existing inventoried routes. It is possible that there are additional existing routes which have not been identified on the proposed YFO Route Inventory, and therefore, a slightly higher acreage of vegetation would continue to be impacted under Alternative A.

Under all alternatives, existing inventoried routes would continue to impact five linear miles within the Blue Sand Lily VHA; and 14 linear miles within the Elephant Tree VHA. Special status and priority plant species which could be impacted from recreational trail use include the Algodones Dune sunflower, Alverson's foxtail cactus, long leaf sand paper plant, sand food, and dune spurge.

G. FROM LANDS AND REALTY MANAGEMENT

Under Alternative D, land supporting the blue sand lily, a special status species, would not be available for disposal. Under the Proposed Plan, the land would be available for disposal.

1. ROW Corridors

Alternatives B and C would designate the most ROW Corridors (10). The use of the designated ROW Corridors would cause a concentration of ROWs in a confined area and could cause a degradation of vegetative resources. Designation and use of ROW Corridors minimizes the degradation to vegetative resources throughout the planning area by concentrating BLM-authorized surface disturbances from major ROW activities within a confined area. All ROW actions in corridors would be mitigated on a case-by-case basis to protect vegetative resources according to Management Actions, BMPs, and Conservation Measures.

H. FROM MINERAL RESOURCE MANAGEMENT

BLM-authorized surface disturbing activities associated with leasable, locatable, and salable mineral actions like mining, oil/gas leasing, or sand and gravel removal have direct adverse impacts to vegetative resources. These impacts occur from disturbance of surface soil and vegetation removal. The areas open to mineral entry require a subsequent NEPA process before any proposed action is implemented. Due to the harsh climatic conditions and lack of rainfall within the planning area, revegetation efforts are largely unsuccessful in upland desert environments.

Mineral entry withdrawals would beneficially impact vegetation resources in general. There are currently 6,500 acres withdrawn from mineral entry (Alternative A). Alternative B would withdraw 3,600 acres, while Alternative C would withdraw 5,400 acres from mineral entry. Alternatives D would withdraw 8,300 acres and the Proposed Plan would withdraw 12,000 acres,

the most acreage from mineral entry. This would afford protection to the Sears Point ACEC. The additional withdrawals in the Proposed Plan at Dripping Springs and Expanded Sears Point ACECs would protect vegetation at the springs and within the expanded Sears Point area. Common to all of these alternatives is the Congressional withdrawal of Wilderness Areas which consist of 167,800 acres.

1. Community Pits

Alternative B would cause the most impact to vegetation resources as a result of removal of salable minerals from community pits if they are designated as a result of this plan. This alternative proposes 800 acres of community pits, while Alternatives A and D propose no new community pits, leaving the existing 100 acres of pits in use. Alternative C proposes 400 acres in three community pits. The Proposed Plan proposes 700 acres in five community pits.

I. FROM WILDERNESS CHARACTERISTICS MANAGEMENT

The BLM would seek to maintain existing opportunities to experience naturalness within lands that have been identified for wilderness characteristics management. The maintenance of naturalness on these public lands would be accomplished through the relocation, mitigation, or restoration of authorized surface-disturbing activities. These measures may result in the maintenance and/or improvement of vegetative resource values. Public lands that have been identified to maintain wilderness characteristics where indirect beneficial impacts to vegetative resources may occur vary by alternative as follows: Alternative A, 0 acres; Alternative B and the Proposed Plan, 48,400 acres; Alternative C, 91,400 acres; and Alternative D, 301,200 acres.

4.3.3 UNAVOIDABLE ADVERSE IMPACTS

- Dredging and boat ramp maintenance may cause unavoidable adverse impacts to aquatic plants.
- Construction of ROWs may cause unavoidable adverse impacts to slow growing species such as ironwood trees and saguaros within areas of surface-disturbing activities.
- Wildfire and fire suppression activities.
- Effects to non-target species resulting from vegetation treatments.
- Law enforcement activities may necessitate OHV use and cross-country travel, which may impact vegetation resources. Illegal immigration traffic results in trampling of vegetation and increases human caused fire occurrence.

4.3.4 IRRETRIEVABLE AND IRREVERSIBLE IMPACTS

Land tenure decisions resulting in disposal of lands would be considered a loss of vegetation resources, and therefore an irretrievable and irreversible impact. Land tenure decisions could have both positive and negative impacts, depending on land use after disposal and/or if the lands were disposed of by exchange.

4.4 FISH AND WILDLIFE

Fish and wildlife resources within the planning area include priority game species; priority non-game species (raptors, bats, and migratory birds); fish and other aquatic species; and special status species. The impact analysis focused on those management actions that have the potential for physical disturbance of habitat, loss of habitat, and the loss or disturbance of special status and priority species (see Appendix 2-B—Priority and Special Status Species List) within the planning area. Impacts can be direct or indirect.

Direct impacts result from an activity or action that affects, through no other means, a change of existing conditions or practices in a given species or population. Indirect impacts result from an activity or action that, through associated effects, can be reasonably linked and thereby shown to be contributing to the change of existing conditions or practices of a given species or population.

Indirect impacts to fish and wildlife may occur when actions result in environmental changes that indirectly influence the survival, distribution, or abundance of species (or increase the abundance of undesired non-native species). Examples of indirect impacts may include effects of noise, barriers to migration, presence of chemical contamination, or incidence of human activity levels that may disturb or harm wildlife.

The following effects are considered to be adverse impacts to fish and wildlife. Activities that:

- Result in either direct or indirect harm to, harassment of, or destruction of individuals of any species listed as endangered, threatened, or rare under Federal or State law, regardless of duration of impact. Species to which this classification applies include State- and federally listed, proposed, as well as candidate species, species of concern, or other species that are demonstrably rare, threatened, or endangered.
- Cause toxic contamination of wildlife, or inhibit recolonization of the site as a result of discharge of toxic compounds at the surface and/or subsurface of a disposal site, or through exposure of toxic compounds during dredging activities.
- Cause the loss or long-term degradation (including changes in species composition and abundance) of a sensitive habitat, defined as a habitat that
  - provides essential resources that are otherwise limited on a regional scale;
  - serves as a concentrated breeding, nursery, or foraging area; or
  - supports substantial concentrations of sensitive species.
- Violate Federal, State, or local laws with respect to the protection of fish and wildlife species, regardless of duration of impact.
- Disrupt the feeding, breeding, nesting, or roosting habits, directly or indirectly, of special status species (including federally and State-listed species within Arizona and California, BLM sensitive species, and species of concern) or their habitats, as designated by Federal, State, or local agencies.
- Result in substantial loss, reduction, degradation, or disturbance in species habitats or in their populations. These impacts could be short- or long-term impacts. For example, short-term or

temporary impacts may occur during project implementation, whereas long-term impacts may result from the loss of vegetation and thereby loss of the capacity of habitats to support fish and wildlife populations. Degradation of species could also result from introduction of invasive exotic species.

- Result in a net loss of riparian area or habitat value, either through direct or indirect impacts to riparian or wetland vegetation, loss of habitat for wildlife, degradation of water quality, or alterations in hydrological functions. This classification includes riparian habitat and federally protected wetlands.
- Result in substantial loss, reduction, degradation, or disturbance of sensitive plant communities and habitat types.
- Result in substantial interference with the movement of any resident or migratory species of fish or wildlife or with established native resident or migratory wildlife corridors.
- Conflict with any local policies or ordinances protecting fish and wildlife or conflict with the provisions of an adopted habitat conservation plan; species recovery plan; natural community conservation plan; or other approved local, regional, or State habitat conservation plan.

Avoidance is the preferred method to prevent loss. If a measure to prevent the loss of habitat is not available, then an action should be designed to minimize impacts to all affected areas.

Beneficial impacts to fish and wildlife resources are expected to occur from vegetation treatment and removal of invasive species, range and wildlife habitat improvements, protective area designations such as Wilderness and ACECs, and protective allocations (such as SCRMA, VHA, WHA, VRM Classes I and II, Closed OHV Management Areas, and CMAs).

The analysis of potential impacts to fish and wildlife was based on review of existing literature and the expertise of BLM resource specialists at the YFO. Literature sources include but are not limited to the following:

- *Anthropogenic Degradation of the Southern California Desert Ecosystem and Prospects for Natural Recovery and Restoration* (Lovich and Bainbridge 1999);
- LCR MSCP, *Final Programmatic EIS/Environmental Impact Report* (USDOI Reclamation et al. 2004);
- *Arizona Standards for Rangeland Health and Guidelines for Grazing Administration* (USDOI BLM 1997a) ; and
- USFWS Biological Opinions for activities in the planning area.

4.4.1 IMPACTS COMMON TO ALL SPECIES

The potential impacts (direct and indirect) to fish and wildlife resources are categorized below as those resulting in: habitat loss and fragmentation; habitat disturbance/degradation; and habitat enhancement and restoration.

A. HABITAT LOSS AND FRAGMENTATION

1. From Vegetation Resource Management

Vegetative treatment actions would result in the loss of habitat for some species through the loss of vegetative cover or forage resources.

2. From Livestock Grazing Management

Direct impacts from livestock grazing on vegetative cover and biomass are documented. The loss of vegetative cover and biomass leads to decreases in shelter sites. This has been shown to be associated with a decrease in the diversity and abundance of lizards as well as other wildlife species in arid environments (Lovich and Bainbridge 1999). Impacts to wildlife shelter sites are anticipated to be minor and negligible due to the relatively small percentage of the planning area used for livestock grazing, as well as the Standards and Guidelines for rangeland health and grazing practices, which minimize impacts on wildlife resources.

3. From Lands and Realty Management

Land use authorizations (i.e., ROWs, leases, and permits) could cause fragmentation, barriers, and/or loss of wildlife habitat through removal of vegetation, construction of fences, and construction of other structures and facilities.

Site specific activities (construction or other surface-disturbing actions) authorized within land use allocations may result in the temporary or permanent removal of wildlife habitat and lead to degradation of habitat from land use actions. Habitat in these areas may no longer function as they did prior to development and disturbance in the area. Impacts may include elimination of wildlife forage, cover, and breeding habitat (USDOI Reclamation et al. 2004).

Disposal of lands could result in fragmentation of habitats. Indirect impacts from land disposals could include effects on wildlife habitats that are on the fringes of associated disposed lands. Land disposals surrounding urban areas could result in the potential elimination of the buffer zone protecting wildlife and wildlife habitats. Disposal of large tracts of agricultural land could prevent opportunities for flood-irrigation riparian restoration.

4. From Mineral Resources Management

Mining and mineral extraction activities (including community pits) would result in the loss of habitat and habitat features, including the loss of boulders and other rock shelters.

B. HABITAT DISTURBANCE/DEGRADATION

1. From Special Designations

The designation of proposed National Byways could potentially increase recreational trail use on these routes. Increased use on these identified routes could result in a greater amount of impacts to wildlife and wildlife habitat through these areas (Trombulak and Frissell 2000). Proposed National Byways represent some of the most heavily traveled routes within the planning area, and impacts to wildlife along them would continue independent of a byway designation.

Increased interpretation, monitoring, maintenance, and enforcement along proposed byways by the BLM and interested partners would strive to minimize existing impacts to wildlife from recreational trail use.

The development of a recreational Anza Trail proposed under all alternatives would increase recreational trail use within the Colorado and Gila Rivers Riparian WHA. The development of the Anza Trail may require the use of heavy equipment and minor modifications to the riparian wildlife habitat. Increased trail use would result in increased harassment of wildlife. Because wildlife management is one of the primary purposes of the Fred J. Weiler Greenbelt, future trail alignment and recreational use limitation decisions would attempt to minimize these impacts.

2. From Livestock Grazing Management

Degradation of habitat could occur from livestock grazing activities. These impacts are anticipated to be minor and negligible as all livestock grazing activities would be in accordance with the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration. These standards and guidelines preclude negative impacts by requiring regular site assessments and alteration or termination of grazing if adverse impacts are evident.

3. From Recreation Management

Wildlife could be adversely impacted by human interactions, including higher noise levels, litter, and wildlife harassment. Dispersed camping may impact wildlife habitat by degrading vegetation. Camping tends to be more concentrated along the river in summer and winter, and dispersed during the hunting seasons. Wildlife may be collected, displaced, harassed, and disturbed in camping areas

Degradation of habitat may occur from vegetative product collection (authorized and unauthorized, firewood collection, seed collection). Collection of firewood has the potential to adversely impact wildlife when people drive to collection areas and through the removal of dead and downed material. Dead, downed, and detached vegetative material provides shelter for various species, including reptiles and amphibians.

Concentrated recreational activities may have adverse impacts on wildlife by displacement, either temporarily or for long terms depending on the type of recreation activities. Destination SRMAs proposed under Alternatives B, C, D, and the Proposed Plan would focus on marketing these areas as regional or national recreational destinations, potentially increasing the number of visitors to these areas. Any increase in visitor use throughout the YFO is expected to correspondingly increase the amount of disturbances to wildlife.

Recreationists could be attracted to these areas in order to experience whatever niche is emphasized in that area, which could result in a disturbance to wildlife.

Recreational boating may cause the degradation of aquatic habitat by uprooting vegetation, eroding shorelines, suspending bottom sediments, and directly harming fish and wildlife. Boating activity also impacts air by increased hydrocarbon pollution, soils by fuel and chemical spills, and habitats surrounding water bodies by wave activity, noise, trampling, and beaching of boats.

Maintenance activities (including dredging) associated with boat ramps and docks could alter river and reservoir structure, but the area affected by these activities would likely be only a fraction of an acre individually and likely only a few acres cumulatively.

Because most wildfires in the planning area are human-caused, recreational use in riparian habitat increases the risk of wildfires that remove riparian vegetation along the river corridor.

4. From Travel Management

Several peer-reviewed scientific papers "universally conclude that the construction of roads, the presence of roads in the landscape, and the vehicles that travel upon roads have a wide range of ecological effects" (Brooks and Lair 2005). There are several documented direct and indirect impacts to wildlife and wildlife habitat in desert ecosystems from OHV use. These impacts include mortality from road construction and vehicle collisions, modifications of animal behavior, alterations of the physical environment, increased spread of non-native invasive species and increased use of areas by humans (Trombulak and Frissell 2000). However, the severity of these impacts are dependent upon a number of factors, including the type of vehicular route, the density of motorized routes, the total area of routes within the landscape, the presence of infrastructure including fences and culverts, and the overall habitat quality surrounding the route (Brooks and Lair 2005). These impacts would generally occur along all motorized routes within the planning area, including drivable desert washes. Research in the adjacent Mojave Desert concludes that individual OHV trails and unimproved local roads may lack broadscale ecological impacts, but collectively they represent a significant threat when trails are dense and comprise a large portion of desert landscapes (Matchett et al. 2004).

Wildlife movement corridors would be directly impacted by OHV use, particularly if use increases. Impacts to movement corridors could potentially alter behavior, foraging, and breeding activities. Increased OHV activity would likely also increase wildlife mortality. OHV activities would increase noise, ground disturbance, human use, litter, and harassment. Paved highways intersecting corridors also contribute to mortality of wildlife. For example, vehicle use can displace desert bighorn sheep from watering areas (Jorgensen 1974) at the proposed Martinez Lake Open OHV Management Area. In non-watering areas (for example, Laguna Mountains RMZ), human disturbance can stress sheep in the form of cardiac or behavioral responses (MacArthur et al. 1982).

Within designated Open OHV Management Areas, motorized travel would not be limited to existing or inventoried routes, and visitors would be able to travel cross-country wherever they choose. The impacts to wildlife from Open OHV Management Area designations, therefore, would be more severe than recreational trail use that is limited to inventoried routes. Designating new Open OHV Management Areas can potentially increase OHV use within the area. New Open OHV Management Area designations are likely to further denude vegetation within the open area, and further increase illegal OHV use outside of the open area boundaries (Matchett et al. 2004). Consequently, sensitive wildlife habitat outside of boundaries of the Open OHV Management Area can be further impacted.

OHV use and other disturbances to the desert pavement within the planning area increase wind and water erosion and degrade habitat quality. Route proliferation threatens fragmentation of what is currently contiguous habitat.

Fenced off areas, such as the Milpitas Wash North Bank OHV restriction creates a movement barrier and alter wildlife's travel routes to forage, water, and breeding areas.

Non-motorized recreational trail activities, such as hiking, biking, and equestrian use, generally disturb wildlife and wildlife habitat much less than motorized activities. Hikers that bring dogs along can cause increased impacts to wildlife through harassment by temporally introducing a perceived predator, which can disturb and frighten wildlife.

5. From Lands and Realty Management

Construction activities from BLM-authorized lands and realty actions that cause surface disturbance may potentially introduce contaminants into the air, water, and soil, which in turn may have adverse impacts on wildlife and habitats (USDOI Reclamation et al. 2004). ROW Corridors can also fragment wildlife habitats and create barriers to movement.

6. From Mineral Resource Management

BLM-authorized mining and mineral extraction activities (including community pits) would result in surface disturbance that denude areas of vegetation, reducing forage, cover, and breeding habitat available to wildlife. Indirect impacts of mining and mineral activities would include the segmentation of habitat and barriers to wildlife movement.

Mining and mineral extraction activities have the potential to increase human harassment of wildlife. Short-term impacts from mining activities include changes in wildlife behavior because of human presence, and the presence of unnatural objects. Long-term impacts include the overall change in species diversity and composition including the potential for circulation of invasive species.

C. HABITAT ENHANCEMENT AND RESTORATION

1. From Special Designations

Enhancement and protective designations such as ACECs would benefit wildlife habitat by limiting human activities and disturbances in these areas while prioritizing restoration treatments as part of vegetation and management actions.

Enhancement and protective allocations such as SCRMAs, VHAs, WHAs, Closed OHV Management Areas, and CMAs (Fortuna Pond CMA, Limitrophe and Mittry Lake CMAs) would also be beneficial to wildlife habitat because of resource protection.

2. From Vegetation Resource Management

Vegetative treatments would result in improvements to habitat which may benefit many wildlife species. Degradation of habitat potentially occurs from invasive non-native species in the planning area. Vegetative treatments to reduce invasive species are primarily beneficial to wildlife habitat because they restore native plant communities, thus improving the ecological health of the area.

Prescribed fire would likely result in the temporary loss of habitat, but would have beneficial impacts in the long-term. Prescribed fire has been shown to remove invasive plant species and improve habitat for several species, including threatened and endangered species (Conway and Nadeau 2005).

3. From Fish and Wildlife Management

Range and wildlife habitat improvement projects would have beneficial impacts to wildlife by providing forage and watering sites which are made wildlife accessible. Conservation, enhancement, and restoration projects would have beneficial impacts on wildlife habitat within the planning area.

4. From Livestock Grazing Management

Adherence to the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration would result in beneficial direct impacts to wildlife by reducing soil erosion and promoting the development of riparian and wetland plant communities. Adhering to these standards and guidelines would have positive long-term impacts to biological resources by maintaining the ecological rangeland condition for those areas currently in healthy condition and by improving those areas that are currently substandard, ultimately improving priority plant and wildlife habitat (USDOI BLM 1997a).

5. From Lands and Realty Management

Acquisition of lands could have beneficial long-term impacts to wildlife. Any additional lands acquired along with any acquisitions of split estate for minerals, could directly benefit wildlife by providing surface protection and forage, shelter, and breeding habitat.

4.4.2 DIRECT AND INDIRECT IMPACTS – SPECIAL STATUS SPECIES

A. DISTURBANCE

1. From Vegetation Resource Management

Effects to SWFL and Yuma clapper rail from implementation of vegetation treatments or restoration projects would vary by the method of treatment used. Vegetation treatment projects would generally not be proposed in habitat of these listed species except where doing so would enhance survival and recovery of these species. Direct effects could include disturbance, injury, or mortality from personnel or vehicles in or adjacent to nesting habitat, nest abandonment, and loss of habitat. Indirect effects would include reduced fitness or mortality resulting from loss of vegetative cover, increased temperatures at nesting sites from loss of shading, reduction or loss of available nest sites, reduction or loss of food resources, and increased risk of predation and/or nest parasitism. Effects would vary from short to long-term. Vegetation treatments in areas not currently occupied by these species may provide or improve habitat where these species can relocate.

Effects to razorback sucker from implementation of vegetation treatments or restoration projects would vary by the method of treatment used. Vegetation treatment projects would generally not be proposed in listed fish habitats except where doing so would enhance survival and recovery of these species. Direct effects could include disturbance, injury, or mortality, or physical removal of habitat. Indirect effects would include reduced fitness or mortality resulting from loss of vegetative cover, increased temperature from loss of shading, increased sedimentation from erosion in surrounding watersheds, reduction or loss of hiding cover, reduction or loss of food resources, and the potential for increased predation. Effects would vary from short to long-term.

2. From Livestock Grazing Management

The impacts of livestock grazing on special status species, such as Sonoran desert tortoise, could include habitat loss and degradation, and mortality or injury resulting from operation, construction, and maintenance of range developments; and habitat loss and degradation and associated mortality resulting from livestock grazing. Livestock grazing could impact Sonoran pronghorn if the species is reintroduced into currently unoccupied historic habitat.

3. From Wild Horse and Burro Management

Burros may compete with Sonoran desert tortoise for forage and alter the vegetative composition of Sonoran desert tortoise habitat.

4. From Recreation Management

Maintaining recreational boating access and fishing opportunities increase the probability that recreational activities could continue to impact the bonytail chub, razorback sucker, and other aquatic species. These impacts include inadvertently taking or capturing special status fish, the introduction of non-native fish, and modifying or disturbing the shoreline or riverbed habitat (USDOI USFWS 1998a and 1998b).

Recreational activities could lead to disturbance of SWFL or Yuma clapper rail nesting sites by humans. The probability of nest abandonment from such activities is low, but not discountable. In addition, agricultural activities, livestock grazing, and wide scale human activities could increase the presence of brood parasites of SWFLs, such as brown-headed cowbirds (USDOI USFWS 1995).

The allocation of RMZs to provide special recreation niches for public recreationist might attract an increase of visitors to some areas, which could potentially result in a disturbance to wildlife from human presence and motorized equipment

Boating use disturbs wintering bald eagles in the planning area. Recreational boating access would be maintained under all alternatives at the Senator Wash Boat Launch, Squaw Lake Campground, and Oxbow Recreation and Wildlife Area, and these impacts to bald eagles would continue to occur (USDOI BLM 1996b).

Public use increases the risk of wildfires that remove riparian vegetation along the river corridors, which would have an adverse impact on wildlife habitat.

Short-term uses of areas can result in the loss, fragmentation, and degradation of wildlife habitat. Impacts include long-term productivity of habitats that recover slowly (including long-lived species in impacted areas such as ironwood, saguaro, creosote, and desert tortoise). Some habitats could take a hundred years or more to recover from short-term impacts (construction, ROW Corridors, etc.)

5. From Travel Management

Take of listed species may occur during OHV activities or use of routes in the planning area by direct mortality (vehicle collisions), habitat fragmentation, and disturbance.

6. From Lands and Realty Management

Take of listed species could occur during land use authorization activities (communications use lease, roads, powerlines, pipelines, etc.), particularly in areas with resources known to be used by listed species. However, these authorizations require an individual NEPA analysis for each action, which must undergo a biological assessment including consultation with appropriate wildlife management agencies to determine listed species are not likely to be harmed.

Disposal of lands could result in the net loss of habitat, which in turn would potentially cause direct and indirect impacts to individuals and populations of species. Species within disposed lands may suffer direct mortality or injury as a result of activities within the disposal lands (USDOI USFWS 2002e).

Although there are many acres potentially identified for disposal in historic FTHL habitat, most are fragmented and unlikely to support this species.

The continued agricultural leasing of isolated public lands adjacent to suitable SWFL habitat may attract brown-headed cowbirds. The brown-headed cowbird, a brood parasite of the SWFL, may adversely impact breeding success of this endangered species (Brown 1994; Whitfield and Sogge 1999).

Disposing of agricultural land near Palo Verde, California, along the Colorado River would prevent inexpensive restoration opportunities for flood-irrigation of native riparian (cottonwood-willow) communities. Restoration of retired agricultural leases is identified in the LCR MSCP.

7. From Mineral Resource Management

Direct effects to Sonoran desert tortoise from mining and mineral extraction activities (including community pits) include disturbance, injury or mortality where tortoise are run over or crushed in their burrows, loss of habitat, increased risk of ingestion of foreign objects and toxic substances.

Take of listed species may occur during mining and mineral extraction activities in the planning area from injury or mortality, loss of habitat, increased risk of contact with toxic substances, and disturbance.

B. BENEFICIAL

1. From Special Designations

Designation of the Palomas Plain ACEC would result in protection and management of the potential reintroduction habitat for the Sonoran pronghorn, because ACECs are designed with management actions that preserve and restore wildlife habitat and limit degradation.

4.4.3 DIFFERENCES BETWEEN ALTERNATIVES

Differences in potential impacts on fish and wildlife for each alternative by resource and resource uses are outlined in Table 4-5 and the discussion below.

Table 4-5
Potential Impacts to Fish and Wildlife

Loss/Degradation	Alternative				
	A	B	C	D	E
Adverse Impacts					
Back Country Byways (miles)	0	220	76	0	21
National Recreation Trail (miles)	0.5	5.5	0.5	0.5	0.5
Communications Sites	200	300	300	200	300
Community Pits	100	800	400	100	700
Destination SRMA	0	697,100	494,300	250,500	459,100
Land Disposals	19,100	46,900	10,500	8,200	11,900
Open OHV Management Areas	400	3,800	2,400	400	400
ROW Corridors	74,600	129,900	129,900	91,300	121,700
Total Acres*	94,400	735,700	570,900	310,100	522,600
Beneficial Impacts					
ACECs	6,700	6,700	28,900	491,900	28,900
Closed OHV Management Areas (non-wilderness)	1,200	3,200	3,500	66,000	5,100
CMA	3,800	5,300	5,300	3,800	5,300
Undeveloped SRMA & ERMA	0	33,600	758,800	1,031,900	735,600
VHA	12,400	0	12,400	22,900	22,900
Wilderness (AZ/CA)	167,800	167,800	167,800	167,800	167,800
Wilderness Characteristics	0	48,400	91,400	301,200	48,400
Withdrawal acres (non-wilderness)	6,500	3,600	5,400	8,300	12,000
Total Acres*	198,400	281,000	1,061,100	2,093,800	1,026,000

Note: Acreage totals include BLM-administered acres only
* Non-overlapping total

A. FROM SPECIAL DESIGNATIONS

The development of the proposed Betty's Kitchen NRT extension (5.0 miles) proposed under Alternative B would increase recreational trail use within the Mittry Lake Wildlife Area, which is part of the Colorado and Gila Rivers Riparian WHA. The development of the NRT would require the use of heavy equipment and minor modifications to the riparian wildlife habitat. Increased trail use would result in increased disturbance of wildlife within the immediate vicinity of the trail. Because wildlife management is the primary purpose of the Mittry Lake Wildlife Area, recreational use decisions would include provisions to mitigate these impacts.

Back Country Byways have the potential to affect the proposed Desert Mountains WHA under Alternatives B and C (Table 4-6). Designations may increase existing traffic and cause disturbances to bighorn sheep (Jorgensen 1974) and other wildlife (Trombulak and Frissell 2000). Alternative D would not nominate any byways, and therefore would avoid impacts to wildlife such as desert bighorn sheep and desert tortoise. The Proposed Plan does not nominate as many byways which pass through the Desert Mountain WHA as Alternative C. Alternative B nominates all of the proposed byways including Clanton Hills and Red Raven Loop which have high wildlife values. Management actions and SOPs for wildlife would minimize impacts by using public interpretation, signs, and vehicle pullouts. Mileages of byways by alternative are displayed below in Table 4-6.

Several of the proposed ACECs overlap with WHAs. The impacts of these designations would be beneficial because ACECs propose actions specifically aimed at managing the area to protect its "critical" environmental resources. These designations protect the area's natural systems and features, including wildlife and habitat from irreparable damage. Alternative D proposes the greatest acreage in seven ACECs consisting of 491,400 acres. The Proposed Plan proposes three ACECs consisting of 28,900 acres, The Fred J. Weiler Greenbelt passes through the expanded Sears Point Cultural Area. The Colorado and Gila Rivers Riparian WHA overlaps with the Limitrophe and Walters Camp ACECs under Alternative D.

Table 4-6
Proposed Back Country Byways on BLM-Administered Lands within WHAs by Alternative (miles)

Proposed Byways within WHAs	Alternatives				
	A	B	C	D	E
Priority Wildlife Habitat	N/A	N/A	N/A	N/A	N/A
Wildlife Movement Corridors	N/A	13	7	N/A	2
Desert Mountains	N/A	87	38	N/A	3
Palomas Plain	N/A	108	34	N/A	0
Dunes	N/A	N/A	0	N/A	0
Colorado and Gila River Riparian Area	N/A	1	1	N/A	1
Total miles	N/A	208	80	N/A	6

B. FROM RECREATION MANAGEMENT

Under Alternative D, BLM would not expand or develop any new recreation sites, and the impacts to the Colorado and Gila River Riparian WHA would be contained to the 500 acres of existing recreation sites located within these ecosystems. Under Alternatives A, B, C, and the Proposed Plan, BLM would use adaptive management on a case-by-case basis to determine if the expansion or development of new recreation sites would be necessary to meet public demands or address user and resource conflicts..

C. FROM TRAVEL MANAGEMENT

The Blaisdell Open OHV Management Area identified in Alternatives B and C would likely impact more than 600 acres of Category III Sonoran desert tortoise habitat (Table 4-7). Sonoran desert tortoises are likely to occur within non-designated habitat within the Blaisdell Open OHV Management Area. Sonoran desert tortoises regularly occur in non-designated habitat adjacent to designated tortoise habitat (AGFD 2005) (Table 4-7).

A total of 1,800 acres of Open OHV Management Areas overlap with WHAs under Alternative B. In Alternative C, 1,700 acres overlap. These amounts are less than one percent of the total acreage of WHAs. There is a potential for wildlife disturbance and loss of Sonoran Desert tortoise habitat in some of these areas. No Open OHV Management Areas overlap with WHAs under Alternatives A, D, and the Proposed Plan.

Motorized travel is not permitted within proposed Closed OHV Management Areas. Impacts to wildlife would not occur within the proposed Closed OHV Management Areas and wildlife habitat would be maintained or enhanced.

Table 4-7
Proposed Open OHV Mangement Areas within WHAs and Sonoran Desert Tortoise Habitat (acres)

Habitat	A	B	C	D	E
Category III Desert Tortoise Habitat	0	650	600	0	0
Desert Mountains WHA	0	700	600	0	0
Wildlife Movement Corridor WHA	0	1,100	1,100	0	0

WHA = Wildlife Habitat Area

D. FROM VISUAL RESOURCE MANAGEMENT

The Desert Mountain WHA, which contains desert bighorn sheep habitat, is mostly within VRM Class II. VRM Class II areas allow minimal impacts to vegetation resources, and in turn wildlife, because of limits placed on visual contrast in these areas.

E. FROM LANDS AND REALTY MANAGEMENT

Alternative B and the Proposed Plan would dispose of some lands currently authorized under agricultural leases near the Colorado River. These alternatives would reduce the opportunities for inexpensive, flood irrigated, riparian restoration for federally listed species such as the SWFL and the yellow-billed cuckoo.

Category III Sonoran desert tortoise habitat would be disposed of under various alternatives. Alternative B would dispose of 320 acres (60 acres west of the Town of Quartzite and 260 acres west of Gila Mountains), and Alternative C and the Proposed Plan would dispose of less than one acre (West of the Gila Mountains). Compensation for loss of habitat would be required and would offset some impacts.

F. FROM FISH AND WILDLIFE MANAGEMENT

The Dunes WHA includes 59,400 acres under Alternatives C and D; 0 acre under Alternatives A and B; and 57,500 acres under the Proposed Plan. The additional 1,900 acres proposed under Alternatives C and D do not provide high quality dunes habitat for special status species. Impacts to special status species would not change as a result of the reduced acreage identified under the Proposed Plan. Under Alternatives A and B, YFO would not have a Dunes WHA and therefore would not maintain sand dune habitat quality. This could potentially impact several special status species.

The Palomas Plain WHA includes 704,800 acres under Alternatives B and C; 0 acre under Alternative A; and 627,700 acres under the Proposed Plan. The additional 77,100 acres proposed under Alternatives B and C are primarily located on isolated and noncontiguous parcels that would increase the difficulty of consistent wildlife habitat management. Under Alternative A there would be no WHA allocated in the Palomas Plain; and instead, portions of the Palomas Plain would be managed for priority wildlife habitat.

G. FROM WILDERNESS CHARACTERISTICS MANAGEMENT

The BLM would seek to maintain existing opportunities to experience naturalness within lands that have been identified for wilderness characteristics management. The maintenance of naturalness on these public lands would be accomplished through the relocation, mitigation, or restoration of authorized surface-disturbing activities. These measures may result in the maintenance and/or improvement of wildlife habitat values. Public lands that have been identified to maintain wilderness characteristics where indirect beneficial impacts to wildlife habitat values may occur vary by alternative as follows: Alternative A, 0 acre; Alternative B and the Proposed Plan, 48,400 acres; Alternative C, 91,400 acres; and Alternative D, 301,200 acres.

4.4.4 UNAVOIDABLE ADVERSE IMPACTS COMMON TO ALL ALTERNATIVES

- Dredging and boat ramp maintenance would result in unavoidable impacts to aquatic habitat.

- Surface-disturbing activities from land use authorizations (ROWs, leases, and permits) would lead to the unavoidable loss of wildlife habitat features.
- Wildfire and fire suppression activities would cause unavoidable adverse impacts to wildlife habitat. However, the conservation measures in Appendix 2-C would minimize the effects and suppression would limit the impacts of fire on wildlife compared to not suppressing wildfires.
- Vegetation treatment activities would cause unavoidable adverse impacts, if there are effects to non-target species during treatments.
- Mining activities allowed under the 1872 Mining Law for locatable minerals may result in unavoidable loss of habitat.
- Expansion of roadways and creation of new unauthorized routes would result in unavoidable wildlife habitat loss.
- Population growth and associated urban expansion increase the WUI and unavoidable impacts to wildlife habitat.
- Natural events such as high winds, wildfire, and drought would continue, and could cause disturbance and loss of wildlife habitats in the planning area.
- Roadways have been shown to act as mortality sinks for small animals due to roadkill from vehicles. Roadway impacts on wildlife include fragmentation of habitat, barriers to movement and migration, collection of species, propagation of invasive species, and direct mortality.
- Border initiatives would impact wildlife through direct loss and degradation of habitat. Wildlife displacement may also occur as a result of activities related to border security. Displacement may be temporary or long-term, depending on the type of habitat disturbance.

4.4.5 IRRETRIEVABLE AND IRREVERSIBLE IMPACTS

Land disposals converted to developments would lead to irretrievable and irreversible impacts to wildlife through the direct loss of lands under Federal ownership unless the land was disposed of by an exchange in which the BLM received lands suitable for wildlife causing a beneficial impact.

4.5 WILD HORSE AND BURRO

The primary potential impacts to wild horses and burros in the planning area are those that may affect habitat features (i.e., forage, water, cover, and space), individuals and populations, and the continuance of a thriving natural ecological balance, as required by the 1971 Wild Free-Roaming Horse and Burro Act of 1971, as amended. Management actions that may cause such impacts include land use authorizations, land tenure decisions, and land use allocations for HMA and AML_2.

The analysis of potential impacts to wild horses and burros was based on review of existing literature and the expertise of BLM resource specialists at the YFO. Literature sources include but are not limited to the following:

- *Northern and Eastern Colorado Desert Coordinated Management Plan*, an amendment to the California Desert Conservation Area Plan 1980 and Sikes Act Plan with the CDFG and FEIS (USDOI BLM 2002a);
- HMA Plan and Environmental Assessment (USDOI BLM 1980); and
- BLM 1999 to 2004 Monitoring Information–Cibola-Trigo Management Area (USDOI BLM 2005f).

4.5.1 DIRECT AND INDIRECT IMPACTS

Potential impacts to wild horses and burros are categorized below by potential impacts to habitat (food, water, cover, and space), to individuals and populations, and to ecological balance.

A. FROM WILD HORSE AND BURRO MANAGEMENT

HMA allocations would reduce the number of nuisance animals. Herds would no longer be located on the east side of Highway 95, where vehicle encounters with wild horses and burros have been a problem in the past. There have been many accidents along Highway 95 since 1979 involving wild horses and burros. One resulted in the death of the occupants of the vehicle. However, these incidents have been dramatically reduced over the last 6 years. The larger health and safety concern is for the wild horses and burros, and personnel on the YPG Kofa Firing Range. This is the portion of the HMA east of Highway 95. This is a live fire and high explosive impact area on YPG. The potential of UXO is high and endangers not only the animals, put personnel attempting management.

Impacts to wild horse and burro habitat may occur from reductions or other changes in HMA allocations. Changes in HMAs may also impact AML_2s.

HMA allocations may impact individuals or populations when allocation changes result in removal (adoption or relocation) of wild horses and burros.

B. FROM LANDS AND REALTY MANAGEMENT

1. Land Use Authorizations

Potential adverse short- and long-term impacts on wild horses and burros could result, if their ability to use and find habitat features important to their survival, such as forage, water, and cover, were restricted by conflicting land use authorizations.

Potential short-term impacts to individuals or populations during authorized construction activities could occur. Wild horses are more susceptible to these impacts than burros, because

they are more territorial and would likely avoid construction areas for a longer period of time after activities have ceased.

Potential short- and long-term adverse impacts on the thriving ecological balance could result, if land use authorizations reduced wild horse and burro forage habitat, which in turn could result in reduced AML_2s and a population reduction.

2. Land Tenure Decisions

Land disposals (primarily along the Colorado River) from land tenure decisions could have an adverse long-term impact on wild horses and burros by removing habitat and restricting or closing access to forage, water, and cover. Land disposals may result in long-term adverse impacts, if individuals need to be removed or relocated.

4.5.2 UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts to wild horses and burros are expected to occur as a result of HMA changes in the area east of Highway 95. An estimated 100 horses and 100 burros would be removed (i.e., captured and relocated outside of the planning area) from this area.

4.6 WILDLAND FIRE MANAGEMENT

Primary impacts to wildland fire ecology can be characterized as those actions that limit or enhance the ability to suppress fire. Most fires within the planning area are human caused fires which merit full suppression tactics. Wildland fires are infrequent in upland desert, but are more common within the riparian zone. Neither of these areas are fire adapted. The riparian zone has been drastically altered by the presence of dams and water delivery, and the riparian vegetation has been altered and has uncharacteristically volatile fuel. Management objectives include meeting air quality standards. Meeting air quality standards limits the amount of prescribed burning in the planning area. Every prescribed fire requires an approved prescribed burn plan that lists predetermined prescription criteria for weather and fuel conditions. The plan also includes smoke management criteria, which are important to determining the complexity of the prescribed fire. These criteria define measures that would be taken to reduce smoke impacts on sensitive receptors from prescribed fire. ADEQ must approve all prescribed fires before being implemented. State air quality regulations enforced by ADEQ meet or exceed Federal standards. Management objectives also include meeting WUI goals and reducing hazardous fuels in the planning area. WUI strategies and the fuels reduction program would continue to result in beneficial impacts to communities surrounding public lands by reducing the risk of wildfires that could result in property loss and provide for public and firefighter safety.

4.6.1 DIRECT AND INDIRECT IMPACTS

No impacts to fire management have been identified as a result of management actions for the following resources: paleontological resources, special designations, lands managed to maintain wilderness characteristics, wild horse and burro management, and VRM.

A. INCREASED FIRE RISK

1. From Livestock Grazing Management

Removal of forage by livestock, especially removal of light fuels in the form of grasses and forbs, can reduce the potential of a site to carry fire and result in fewer fires of lower intensity or lower rates of spread. A history of grazing, especially improper grazing, can convert ecological types. Conversion of grasslands or ecological types with naturally high grass components to types with higher woody species can result in lower fire frequencies but higher fire intensities when these converted types do burn. In these cases, wildfires might not burn as often, but the likelihood of a catastrophic fire increases.

Livestock grazing in the Sonoran and other western desert ecosystems has led to rapid invasion of Mediterranean annual grasses and forbs, most notably Sahara mustard and Mediterranean grass (*Schismus* spp.), which have increased the fire frequency in ecosystems where the natural vegetation is not fire-adapted. The potential outcome of this invasion is the possibility of creating a fire-dependent plant community consisting mainly of nonnative invasive annual plants, and the eventual loss of native desert vegetation in those places.

In desertscrub and other desert plant communities, wildfires depend on large volumes of ephemeral annual grass and forb production, generally after winters with above-average precipitation. Livestock operators commonly apply for increased livestock numbers to take advantage of abundant forage. In years where the amount of ephemeral production is marginal, high livestock numbers can reduce the potential of large fires. In years with extraordinary ephemeral production (perhaps one year in 10), livestock would not affect fire potential.

2. From Lands and Realty Management

The land tenure adjustment proposal under all alternatives might affect fire management, depending on the post-disposal land use conversion. If disposal leads to development, human population in the area and visitor use on adjacent public lands could increase. This growth could increase the potential for accidental human-caused fire starts. Developing these parcels would also do the following:

- Expand the WUI,
- Potentially increase fire suppression complexity and costs, and
- Increase the risk of public loss of life or property in the event of a wildfire.

Impacts from land disposal, under all alternatives, could include redistributing the overall Federal land ownership and consolidating Federal lands into more contiguous management blocks. This disposal could reduce fire suppression and management responsibilities and increase their effectiveness. Suppression costs could decrease. Management would be more contiguous across the landscape (not broken by parcels of non-BLM ownership) with a resultant increase in the efficiency of operations.

Depending on post-disposal land use, all alternatives could affect both fire suppression and fuels conditions. Continued wildland uses and management would probably have negligible impacts.

But conversion to development uses would increase human populations and change ignition potential, fire behavior, and risk decisions.

Continued use of the existing ROW Corridors and potential reasonable foreseeable development within corridors is expected to temporarily affect fuels and fire because of ground disturbance and increased opportunities for ignition during operation and maintenance. Building more utilities, transportation corridors, and communications sites could affect fire by increasing opportunities for accidental human-caused ignition. More improvements and structures would do the following:

- Affect suppression and costs by placing on the ground more features that could require protection from a wildfire;
- Present more hazards, such as flight hazards from overhead power lines or explosion hazards of buried gas pipelines; and
- Create restrictions to prescribed burning.

3. From Recreation Management

Areas with more potential development and recreation use could affect fire management by increasing the risk of accidental human-caused ignitions. Increased visitation, camping, and OHV use increases potential for cigarettes, campfires, and sparks emitted by OHVs to ignite fires.

4. From Fish and Wildlife Management

The presence of threatened and endangered species and high value riparian habitat would limit the applicability of fuels reduction treatments which in turn increase the risk of wildfire in these areas due to uncharacteristically high and volatile fuel loads.

5. From Public Health and Safety

International Border issues such as illegal immigration, illegal drug trafficking, and associated crime results in increased potential of human caused fire. This in turn raises the risk to personal firefighter safety.

B. LIMITATIONS TO FIRE SUPPRESSION TACTICS

1. From Cultural Resource Management

Protecting some cultural resources results in fire managers using MIST during suppression that might affect cultural resources. When implementing MIST, fire managers use the fewest fire suppression resources, and least-impacting tools and equipment to effectively manage and suppress fire, while (1) meeting fire management protection and resource objectives and (2) minimizing the impact to cultural resources and the landscape. Examples of MIST used by fire managers include the following:

- Limiting fire vehicles to established routes,

- Burning out from existing roads, trails, and natural breaks, and
- Placing fire lines and retardant lines away from known cultural sites.

MIST applies indirect attack strategies more often than direct attack strategies. Where areas are not surveyed, cultural sites could be unintentionally damaged, especially flammable structures. Mitigation measures taken by fire managers to protect cultural sites in suppression and prescribed fire would reduce the known and unknown impacts to cultural resources. The expected results include more area burned by wildfires and increased suppression costs. In prescribed fires, protecting cultural resources results in the following measures:

- Relocating planned firelines,
- Adjusting the size of burnblocks,
- Mitigating adverse effects by removing vegetation around cultural sites to protect them, and
- Determining where prescribed fires might or might not be planned from known cultural resources.

Such measures would have the following results:

- Increasing project costs to protect cultural sites.
- Spending more time and cost in planning.
- Excluding some areas from burning because of the presence of cultural resources.

2. From Travel Management

Closing roads within Closed OHV Management Areas could affect fire management by reducing access to fires by ground initial attack resources (i.e., on-the-ground personnel and equipment). This reduction would have the following impacts:

- Increased initial attack response time,
- Limited access to fires,
- Fewer routes to use as firelines,
- Larger fires (more acres burned), and
- Increased fire suppression costs.

3. From Fish and Wildlife Management

Protecting endangered and threatened wildlife species results in fire managers complying with the Conservation Measures for Fire Management Activities (Appendix 2-C). The limitations provided for under the Conservation Measures could limit the efficiency in which fire managers are able to suppress fire. Conservation Measures would be followed, unless firefighter or public safety, protection of property, improvements, or natural resources render them infeasible during a particular operation.

C. BENEFICIAL/ENHANCEMENT

1. From Vegetation Resource Management

Vegetation resource management would provide beneficial impacts to wildfire management under most circumstances and alternatives within this RMP. The planning area is a non-fire use area, defined as an area that is not historically fire dependant, and where wildfires are suppressed and not allowed to burn to treat vegetation. Historic and native vegetation in the area is not fire dependant, and naturally caused wildfires were very infrequent. Vegetation treatments proposed under all alternatives would reduce hazardous fuel loads. Prescribed fire would reduce risk and potential intensity of a wildfire where these fuel treatments are applied. Restoration efforts to remove undesired and exotic-invasive plant communities would decrease the volatility of fuels, reducing the frequency of wildfires.

2. From Lands and Realty Management

ROWs, leases, permits, and other land use authorizations inadvertently create fuel breaks and provide access routes for wildfire suppression. Federal regulations specific to authorizations reduces the potential threat of accidental ignition of wildfires during construction or maintenance.

4.6.2 DIFFERENCES BETWEEN ALTERNATIVES

Wildland fire management would be implemented in a similar manner under each of the alternatives.

A. FROM TRAVEL MANAGEMENT

The number of routes available would be designated in the Travel Management Plan; however, Alternative A would provide the greatest amount of access to existing routes providing access to firelines. Alternative D provides the least amount of limited access to existing routes and the lowest potential providing access to firelines. Alternatives B, C, and the Proposed Plan provide slightly less potential than Alternative A. Potential impacts to fire suppression capabilities are expected to be minor even after the route designation process is completed because the YFO Manager maintains the authority to allow cross-country vehicle travel in emergency situations.

4.6.3 UNAVOIDABLE ADVERSE IMPACTS

The presence of cultural and natural resources which afford protection and human habitation, such as recreation areas and WUI may be impacted during fire suppression.

The presence of all cultural and natural resources and the human environment limits the ability to suppress wildland fire. Firefighter safety is of paramount importance. The impacts of these resources on the fire program are unavoidable and sometimes adverse.

4.6.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

No proposals would result in an irreversible and irretrievable commitment of resources.

4.7 CULTURAL RESOURCES

Cultural resources (also referred to as heritage resources) are subject to numerous impacts. For the purposes of this document, adverse impacts can be characterized as those that result in the loss, degradation, or destruction of NRHP-listed or eligible cultural properties (sites or districts), traditional cultural properties, or cultural landscapes.

Since heritage resources are finite and non-renewable, avoidance of impacts is always preferred, but other mitigation can reduce and resolve adverse effects to significant cultural properties. The Management and Administrative Actions described for Cultural Resources in Chapter 2 are included to reduce or offset adverse impacts to cultural resources.

The analysis of potential impacts to cultural resources, both adverse and beneficial, was based on a review of existing literature and the expertise of BLM resource specialists at the YFO. Literature and data sources include but are not limited to the following:

- Arizona statewide database for cultural resources,
- California Historic Resources Inventory System,
- Arizona Site Steward Program monitoring data,
- Information from Native American consultations and ethnographic reports,
- *Bare Bones Guide to Fire Effects on Cultural Resources* (Winthrop 2004),
- *Comprehensive Management and Use Plan and Final* EIS *for the Anza* NHT (USDOI NPS 1996),
- *Gila River Cultural Area* ACEC *Management Plan* (USDOI BLM 1990b), and
- *Big Marias Cultural* RMP (USDOI BLM 1984).

BLM land use decisions that authorize surface disturbing activities may result in adverse impacts to cultural resources. Resources could be disturbed, exposed, or lost during these activities. Compliance with Section 106 of the NHPA and other applicable cultural resource laws and regulations would be completed before implementing specific projects resulting from RMP decisions. Examples of ground-disturbing actions that would need project-specific NEPA and/or compliance with cultural resource laws and regulations include proposed communications sites, ROW Corridors, community pits, Open OHV Management Areas, habitat restoration, water catchments, range improvements, and others.

4.7.1 DIRECT AND INDIRECT IMPACTS

Potential impacts (direct and indirect) to cultural resources are categorized below into loss/destruction, degradation, or beneficial impacts to important cultural resources.

A. LOSS/DESTRUCTION

1. From Vegetation Resources Management

Direct impacts from prescribed fire would include damage or destruction of sites and associated artifacts; destruction of organic materials such as bone, plant, and animal fibers, and wooden elements of structures; and destruction or chemical alteration in materials used to date sites, such as charcoal. Prescribed burns would be expected to have less severe effects on cultural resources than would uncontrolled wildfire, because it is possible to determine the predicted temperature and duration of a fire through an area, and possibly to modify burn plans to minimize effects to cultural resources (Winthrop 2004).

2. From Wildland Fire Ecology and Management

Impacts from fire suppression activities would vary depending on the mechanical and/or chemical suppression methods used. Impacts from mechanical fire suppression activities would include potential destruction of artifacts and other materials, and the disturbance of site context and loss of scientific value of individual sites. This has more potential to destroy sites or artifacts than either wildland fire or prescribed burns. Within SCRMAs, ACECs, or areas with other protective allocations, MIST on wildfires would minimize these adverse impacts to cultural resources.

3. From Fish and Wildlife Management

Range and wildlife improvements in the planning area mainly consist of water resource development projects and fencing. These undertakings tend to alter travel patterns of big game animals, wild horses and burros, and livestock. Modification in travel patterns could result in the destruction or displacement of surface artifacts, causing loss of site context, disturbance or destruction of features (such as intaglios), and similar adverse impacts to cultural resources.

4. From Livestock Grazing Management

Some residual cultural resource values could be lost, after mitigation, within grazing allotments where cattle trail or congregate. Destruction or displacement of surface artifacts may result from concentrated use by cattle, causing loss of site context, disturbance or destruction of features (such as intaglios), and similar impacts from cattle trailing or congregating.

5. From Travel Management

Despite the fact that identified Open OHV Management Areas must be completely surveyed for the presence of cultural resources, there would still be the potential of sub-surface resources being disturbed, exposed, or lost within these areas.

6. From Lands and Realty Management

In general, establishing specific ROW Corridors encourages project applicants to place utility lines in certain confined areas. Confining utilities to corridors helps to avoid impacts to cultural sites in other areas. However, ROW Corridors are proposed in known areas of high sensitivity for cultural resources. According to mitigation included in Chapter 2, if land use actions cannot be redesigned to avoid culturally sensitive locations, BLM would be required to minimize direct and indirect impacts to cultural resources, including those within SCRMAs allocated to traditional use or conservation for future use, pursuant to applicable cultural resource laws and regulations.

While site-specific survey, evaluation, and mitigation would be completed prior to any disposal or R&PP lease, some residual cultural resource values would be lost, after mitigation, if cultural resources are present within lands that leave Federal ownership.

B. DEGRADATION

1. From Special Designations

The Anza Trail passes through the planning area along the Gila River. There are numerous archaeological sites along this route. The route has been designated, but the actual footprint has not yet been identified through the planning area. Once established, this route would eventually increase visitation to the trail itself and its associated archaeological sites. Impacts to sites would be mitigated through increasing public interpretation along the trail and site monitoring.

National Byways in the planning area were proposed in recognition of the scenic, historic, recreational, cultural, archaeological, and/or natural qualities along these routes, and in an attempt to manage increased visitor use. The designation may increase public awareness of the heritage resources along these routes and thereby increase the potential for site vandalism and artifact collection. This is offset by increased public interpretation which encourages a stewardship ethic.

2. From Recreation Management

Potential adverse impacts to significant cultural resources may occur as a result of SRMA and RMZ allocations and subsequent management for them. Increased visitation to areas with cultural artifacts has resulted in increased collection and vandalism of cultural resources. The Destination SRMA allocation in particular could increase visitor use of these areas, leading to surface disturbance, unauthorized artifact collecting, and other depreciative behavior.

3. From Visual Resource Management

VRM classes and actions proposed under all alternatives could affect qualities that contribute to the eligibility of cultural resource sites for nomination to the NRHP. These qualities include integrity of setting (which refers to the level of disturbance to the physical environment surrounding a site), and integrity of feeling (which refers to a site's expression of the aesthetic or historic sense of a particular period of time). The alternatives in Chapter 2 provide for the maintenance of view sheds of important cultural resources whose settings contribute significantly to their scientific, public, traditional, or conservation values. VRM classifications

specify the extent of future development allowed in the area. These designations can therefore preserve the aesthetic quality, while consequently preserving the cultural resources of an area.

4. From Cultural Resource Management

Allocation of cultural sites and/or SCRMAs to the Public Use category would lead to increased visitation and thereby increase the potential for damage to existing cultural sites from depreciative behavior. There are no SCRMAs allocated to Public Use under any of the alternatives; however, individual sites within SCRMAs may be managed for Public Use if they meet the criteria outlined in Chapter 2 for that allocation. Public Use sites identified currently within the YFO include the Blythe Intaglios Complex in the Big Marias ACEC, the Dripping Springs site, the Fisherman Intaglio, the Sears Point ACEC interpretive area, the Tyson Wash Petroglyphs, and historic trails such as the Anza Trail, the Butterfield Overland Mail Route, the Gila Trail, and the Mormon Battalion Trail. In order to protect these sites, Chapter 2 stipulates that BLM must map and document cultural properties before interpretive development for public use and implement appropriate developments necessary for site protection and interpretation. In addition, as protection for the public use sites (Blythe Intaglios, Sears Point, Dripping Springs, and historic trail corridors) contained inside ACEC proposals, Chapter 2 states that BLM would not formally publicize ACECs for public use, until the cultural resources have been adequately recorded and protected for visitation.

5. From Travel Management

Unauthorized cross-country travel can inadvertently damage sites from surface disturbance or provide vehicular access to previously remote areas, which may result in artifact collection, breakage, displacement, vandalism, and looting.

Parking off of inventoried routes for purposes of camping has the potential to damage cultural resources from compaction, artifact breakage, and displacement, resulting in loss of scientific data. Continued use of inventoried routes in areas of high site density may increase the potential for vandalism and damage to cultural resources.

When hikers, bikers, and equestrian users stray from established trails, adverse impacts may occur to indigenous cultural resources like intaglios, cleared areas in the desert pavement, and trail networks. Bikes and horses in particular have the potential to cause adverse impacts to cultural resources that are located on sensitive soils.

6. From Mineral Resource Management

Mining and exploration activities defined as casual use and exploration activities disturbing less than five acres typically do not require mining plans. It is more difficult to monitor and mitigate the effects of these activities on cultural resources or the effects of associated activities such as camping.

C. BENEFICIAL

1. From Special Designations

Potential benefits to cultural resources are likely to occur as a result of BLM special designations. Management guidance and directions for designated Wilderness, NHTs, NRTs, National Byways and ACECs would provide benefits to cultural resources from restricting certain degrading activities and practices. See Table 2-1 for acreages of these allocations/designations by alternative.

Heritage sites that are located within ACECs would have additional protection from impacts that could be caused by mineral extraction. Chapter 2 specifies that protection of resource values would take precedence over leaseable/locatable materials. If an area is not withdrawn from mineral entry, special mitigation would be required to avoid impacts to resources. All locatable mineral actions would require an approved Mining Plan of Operations in accordance with BLM *Manual* 3809 regulations. Leasable mineral exploration and development would be evaluated on a case-by-case basis. In addition, new mineral material disposal (salable mineral) sites would not be authorized inside ACECs. Existing material sites would be evaluated and closed if found to be impacting significant resources.

All Wilderness Areas in the planning area are statutorily closed to motorized equipment and mechanized transport use and are withdrawn from mineral entry, except for valid existing rights. Field observations suggest that these restrictions result in fewer visitations and fewer impacts to heritage resources from the visitation.

2. From Vegetative Resource Management

Reducing the fuel load near heritage sites provides the beneficial effect of reducing the chance of wildfires impacting those important heritage sites.

3. From Fish and Wildlife Management

Management directions for proposed WHAs, as identified in Table 2-6, would benefit plant and wildlife species and could also provide coincidental benefits to cultural resources, since the WHAs have associated management actions that restrict ground-disturbing activities.

4. From Livestock Grazing Management

Making areas unavailable to livestock grazing and reducing livestock numbers would be beneficial to cultural resources by preventing trampling of cultural resources and preventing impacts from livestock rubbing against rock art.

5. From Recreation Management

SRMAs and RMZs have been proposed to identify and enhance targeted recreational opportunities and experiences. There is a potential for beneficial impacts to significant cultural resources as a result of these allocations and subsequent management for them. The Blythe Intaglios, Dripping Springs, and Sears Point Heritage RMZs would be primarily managed to provide the public with sustainable cultural resource viewing opportunities. The Heritage RMZs

would be managed to enhance the preservation and interpretation of cultural resource values in these areas.

6. From Travel Management

Limiting OHV travel to inventoried routes until the route designation process is complete would provide a clearly delineated travel network, reduce route proliferation, and facilitate law enforcement. This approach generally would have the beneficial effect of controlling impacts of OHV use on cultural resources.

Use of non-motorized trails by the public for hiking, biking, and equestrian use would have the potential to reduce impacts to cultural resources if users restricted their activities to the identified trails. In SCRMAs and ACECs, vehicles would be restricted to the existing routes, and would not be allowed to pull off 100 feet to either side. This would provide additional protection reducing impacts to cultural resources.

7. From Cultural Resource Management

Allocation of certain cultural sites and/or SCRMAs to the Public Use category would increase public surveillance of important heritage sites and increase public stewardship of cultural resources in the planning area.

Areas proposed for allocation as SCRMAs, as identified in Table 2-29, would be managed such that short-term and/or long-term benefits to cultural resources would also occur.

For cultural sites and SCRMAs allocated to Traditional or Conservation for Future Use, BLM would be required to minimize direct and indirect impacts to cultural values pursuant to applicable cultural resource laws and regulations if land use actions cannot be redesigned to avoid culturally sensitive locations. In addition, BLM would reduce or eliminate indirect impacts from land uses on important cultural resources, and maintain viewsheds of important cultural resources whose settings contribute significantly to their scientific, public, traditional, or conservation values.

8. From Lands and Realty Management

Land acquisitions provide additional protection for cultural resources because those lands would then be subject to Federal cultural resource laws and regulations. Land acquisitions would therefore have a beneficial effect on any cultural resources that exist within the acquired property. Alternatives B, C, D, and the Proposed Plan include criteria for acquisition that would enhance management of significant cultural resources. These alternatives include acquisition of properties adjacent to public lands that contain significant cultural resources including, but not limited to, properties eligible for inclusion to the NRHP.

Reclamation lands, Wilderness, and portions of proposed ACECs are currently withdrawn or proposed for withdrawal from mineral entry, which would provide additional protection for cultural resource sites.

4.7.2 DIFFERENCES BETWEEN ALTERNATIVES

Table 4-8 shows a comparison of the alternatives for the number of acres of ground disturbance that have a potential to adversely affect cultural resources and the number of acres of designations and allocations that have a potential to benefit cultural resources.

Table 4-8
Potential Impacts to Cultural Resources

Loss/Degradation	Alternative				
	A	B	C	D	E
Adverse Impacts					
Back Country Byways	0	220	76	0	21
Communications Sites	200	300	300	200	300
Community Pits	100	800	400	100	700
Land Disposals	19,100	46,900	10,500	8,200	11,900
Livestock Grazing (Acres Available)	1,005,600	680,900	428,300	0	428,300
Open OHV Management Areas	400	3,800	2,400	400	400
ROW Corridors	74,600	129,900	129,900	91,300	121,700
Total Acres*	1,053,400	839,600	555,500	103,700	543,200
Beneficial Impacts					
ACECs	6,700	6,700	28,900	491,900	28,900
Closed OHV Management Areas (non-wilderness	1,200	3,200	3,500	66,000	5,100
Wilderness (AZ/CA)	167,800	167,800	167,800	167,800	167,800
Wilderness Characteristics	0	48,400	91,400	301,200	48,400
Withdrawal acres (non-wilderness)	6,500	3,600	5,400	8,300	12,000
Total Acres	178,100	227,800	293,400	696,900	204,100

Note: Acreage totals include BLM-administered acres only
* Non-overlapping total

A. FROM SPECIAL DESIGNATIONS

1. National Byways

Currently there are no Back Country Byways or Scenic Byways in the planning area. Alternative A would therefore have no direct or indirect impacts on cultural resources from this designation.

Alternative B proposed seven Back Country Byways (Plomosa, Gold Nugget, Brenda, Agua Caliente, Red Cloud, Clanton Hills, and Red Raven Loop). These designations would have the potential to impact more cultural sites than under all of the other alternatives.

Alternative C proposes four Back Country Byways (Plomosa, Gold Nugget, Brenda, and Agua Caliente) and one Scenic Byway (Highway 95). These designations would have the potential to impact more cultural sites than Alternatives A and D, but less than Alternative B.

No Back Country Byways were proposed in Alternative D. The impacts under Alternative D would be the same as Alternative A.

The Proposed Plan proposes two Back Country Byways (Agua Caliente and Plomosa) and one Scenic Byway (Highway 95). These designations would have the potential to impact more cultural sites than Alternatives A and D, but fewer than Alternatives B and C.

2. Areas of Critical Environmental Concern

Alternative C and the Proposed Plan identified three areas for ACEC designation, totaling 28,900 acres. All of these areas (Sears Point, Dripping Springs, and Big Marias ACECs) were specifically identified in part to protect important cultural resources. Cultural sites within the ACECs would be afforded enhanced protection under ACEC management actions which limit development and degrading activities to the environment. Each ACEC under these alternatives contains an important public use site, with accompanying management prescriptions which balance the protection of cultural resource values with proposed interpretive development in Chapter 2. In addition, the ACEC designation would provide additional protection for sites allocated to the scientific, traditional, and conservation for future use categories.

Alternatives A and B have only two designated ACECs (Sears Point and Big Marias ACECs), comprising 6,700 acres. Management actions under these alternatives provide protection for two important public use sites and many other known significant cultural resource sites that are allocated to other appropriate uses. These alternatives provide the least amount of protection for significant cultural resources as a result of ACEC designation.

Alternative D identified seven areas for ACEC designation (Big Marias, Dripping Springs, Gila River Terraces and Trails, Limitrophe, Palomas Plain, Sears Point, and Walters Camp) totaling 491,900 acres. These alternatives would protect several public use sites (Dripping Springs, Sears Point, Blythe Intaglios, and the Anza Trail and other historic trail corridors), the Limitrophe corridor along the Colorado River identified by Native Americans as having traditional use values, and many known sites that are allocated to the conservation for future use category. These alternatives provide the highest level of protection for cultural resources as a result of ACEC designation.

B. FROM LIVESTOCK GRAZING MANAGEMENT

Alternative A would keep 1,005,600 acres and Alternative B would propose 680,900 acres of the planning area available for livestock grazing which contain the greatest number of known cultural sites. Impacts to cultural resources would be expected to be the greatest under these alternatives. Alternative C and the Proposed Plan would make 428,300 acres of the planning area available for livestock grazing which contain considerably fewer known cultural sites. Impacts to cultural resources under these alternatives would be expected to be greater under these alternatives than Alternative D, but fewer than under Alternatives A and B. Alternative D proposes that the entire area managed by the YFO would be unavailable for grazing. This alternative would have the least impacts on cultural resources from livestock grazing.

C. FROM RECREATION MANAGEMENT

All alternatives except Alternative A would allocate SRMAs and RMZs to identify and enhance targeted recreational opportunities and experiences. Different marketing strategies would vary by SRMA. In Destination SRMAs, YFO would proactively seek to form partnerships to promote recreational opportunities within the SRMA as a national destination. This increase in promotion would likely result in an increasing number of public users in these areas over time. Higher number of visitors creates a greater risk for cultural resources in these areas to be either intentionally or unintentionally damaged or destroyed. Alternative B would result in the greatest potential impact to cultural resources with 697,100 acres identified within Destination SRMAs, while Alternative D, with 250,500 acres of Destination SRMAs, would have the least potential to impact cultural resources. There are 455,700 acres identified as Destination SRMAs in the Proposed Plan, within the Colorado River corridor and La Posa area.

Generally, it is expected that fewer people would be visiting Undeveloped SRMAs, so there would be fewer impacts to cultural resources in these areas. Acreages for Undeveloped SRMAs range from 0 acres in Alternative B to 642,700 acres in Alternative D. The Proposed Plan proposes 571,600 acres of undeveloped SRMAs in the Gila River valley and Yuma East areas. While fewer people are expected to be recreating in these undeveloped areas, there would be less of an administrative presence to deter the damage or destruction of cultural sites.

Under the Proposed Plan, the Sears Point, Dripping Springs, and Blythe Intaglios Heritage RMZs overlap with Public Use cultural sites in proposed ACECs. The recreation management objective for these RMZs is to ensure that heritage-based recreation does not negatively impact the resource values of the proposed ACECs. Managing recreation to ensure protection of ACEC values would benefit important cultural resources in these Public Use areas.

D. FROM TRAVEL MANAGEMENT

1. Open OHV Management Areas

Alternatives B would designate 3,800 acres as open to OHV use which is the greatest among the alternatives, while Alternative C would designate 2,400 acres as open areas. Alternatives A, D, and the Proposed Plan have the fewest number of acres designated open, with 400 acres for each alternative. In these areas, visitors would not be restricted to inventoried and/or designated routes (see Table 4-1).

2. Additional Mitigation

If there is an important cultural site identified within an Open OHV Management Area that is eligible to the NRHP, and impacts on that cultural site cannot be sufficiently avoided or mitigated, then the area would not be appropriate for open area designation. Instead, the area would be limited to inventoried routes until the route designation process is complete.

3. Closed OHV Management Areas

Approximately 167,800 acres of designated Wilderness is statutorily closed to motorized use under all alternatives. Additionally, Alternative D would close 66,000 acres; Alternative B would

close 3,200 acres; Alternative C would close 3,500 acres; Alternative A would close 1,200 acres; and the Proposed Plan would close 5,100 acres. Closing areas with extensive cultural resources to OHV use would benefit the cultural resource sites in terms of reduced direct and indirect impacts. The Closed OHV Management Areas located in the Sears Point ACEC, the Dripping Springs ACEC, and the Muggins Mountains SCRMA that are included in Alternative D and the Proposed Plan would have a direct beneficial impact to the cultural resources in those areas.

All alternatives prohibit cross-country travel except in Open OHV Management Areas. Alternative A would limit OHV use to existing routes. Under Alternatives B, C, D, and the Proposed Plan, OHV use on BLM-administered lands would be limited to existing inventoried routes until the route designation process is complete. The current inventory includes 4,600 miles of roads, trails, and linear features. In general, the allowable use of these routes would be a 200-foot-wide corridor (100-feet from centerline), so that there would be some potential for impacts to cultural sites situated within that 101,500-acre area, such as tire damage to a desert pavement feature like an intaglio. The amount of damage to cultural sites from vehicles pulling up to 100 feet off of inventoried routes is expected to be greater in areas with a high density of cultural sites, such as within ACECs and SCRMAs. The Proposed Plan provides the greatest protection for cultural sites by restricting vehicles to existing inventoried routes until designated, and not allowing vehicles to pull off of those routes within ACECs and SCRMAs. The number of eligible sites that might be impacted under the five alternatives is unknown.

E. FROM VISUAL RESOURCE MANAGEMENT

Alternative D has the greatest number of acres designated to VRM Classes I and II, with 192,400 and 624,800 acres respectively, for a total of 817,200 acres (see Table 2-26). This alternative would result in the protection of the visual setting for the greatest number of cultural resource sites because VRM class designations limit the type of development, which also would prevent construction and direct damage to resources from occurring in VRM Class I and II areas especially. The remaining alternatives, from most protective to least protective, are the Proposed Plan with 786,400 acres of Class I and II, Alternative C with 728,900 acres of Class I and II, Alternative B with 709,600 acres of Class I and II, and Alternative A with only 183,000 acres of Class I and II.

In general, SCRMAs would be located inside VRM Class II areas; however, among the different alternatives the Cibola Valley, Laguna Mountains, Ligurta Area, Limitrophe, Mittry Lake, Muggins Mountains, North Gila Mountains, and Senator Wash SCRMAs would be either partially or entirely within VRM Class III (see Table 4-9). SCRMAs located within VRM Class I and II have a greater potential for retention of their current visual settings and would provide the greatest protection of cultural resources from loss, degradation, and vandalism.

Table 4-9
SCRMAs within VRM Classes by Alternative

SCRMA	Alternative				
	A	B	C	D	E
Big Maria Terraces	N/A	I / II	I / II		I / II
Cibola Valley	N/A		III	III	III
Laguna Mountains	N/A		II / III	II / III	II / III
Ligurta Area	N/A		III	III	III
Limitrophe	N/A		III		
Mittry Lake	N/A		III	II	III
Muggins Mountains	N/A	II / III	II / III	II / III	II / III
North Gila Mountains	N/A		II / III	II / III	II / III
Palo Verde Point Area	N/A	II	II	II	II
Sears Point Mesas	N/A	II			
Senator Wash North	N/A		II / III	II / III	II / III
Walters Camp	N/A		II		II

I = Class I VRM; II = Class II VRM; III = Class III VRM

F. FROM LANDS AND REALTY MANAGEMENT

1. Disposals

There would be no lands identified for disposal within SCRMAs under any of the alternatives. Only two to six percent of the proposed disposal areas between alternatives have been surveyed for cultural resources. Additional cultural sites are expected to occur within the unsurveyed portions of the identified lands. All lands identified for disposal are required to be surveyed prior to a final decision to leave Federal ownership. Lands with significant cultural findings are likely to be maintained in Federal ownership. All but a few of the known cultural sites on lands identified for disposal are located in the vicinity of the Town of Quartzsite. Alternative B has the greatest number of lands identified for disposal and would have the greatest number of known cultural sites affected among the alternatives.

2. ROW Corridors

The amount of previous cultural resources survey within proposed ROW Corridors varies from nine to 10 percent between the alternatives. Among the five alternatives, Alternative A, with approximately 445 known sites within existing ROW Corridors, would impact the fewest known cultural sites (Table 4-10). Alternatives B and C each have approximately 1,128 cultural sites recorded within the proposed ROW Corridors. Alternative D has 700 sites and the Proposed Plan has approximately 1,086 cultural sites recorded within the proposed ROW Corridors. In addition, Table 4-11 shows that proposed ROW Corridors overlap with proposed SCRMAs in Alternatives B, C, D, and the Proposed Plan. Of the four SCRMAs proposed under Alternative B, three of those SCRMAs intersect with ROW Corridors. Under Alternative C, seven of the 11 proposed SCRMAs intersect with ROW Corridors. Under Alternative D, three of the eight proposed SCRMAs intersect with ROW Corridors. The Proposed Plan has ROW Corridors overlapping with six of the 10 SCRMAs that are proposed under that alternative.

Table 4-10
Potential Impacts to Cultural Resources from ROW Corridors by Alternative

Element	Alternative				
	A	B	C	D	E
Number of known cultural sites within ROW Corridors	445	1,128	1,128	700	1,086

NOTE: Numbers of sites shown in this table are approximate only and are intended to demonstrate general, relational differences between alternatives. Information in this table is based on data in the AZSITE database as of July 2005. Other cultural sites could potentially exist within these areas available for ROW Corridors.

3. Communications Sites

Alternatives with fewer communications sites would have fewer visual intrusions on the landscape that have the potential to adversely impact the visual setting of cultural resources. There are six existing designated communications sites under Alternative A. Under Alternative B, the number of designated communications sites in the planning area would increase to 13. Alternatives C, D, and the Proposed Plan would include 11, eight, and 10 designated communications sites, respectively (see Table 4-2). For compliance with Section 106 of the NHPA, the two new proposed designated communications sites (Laguna Mountain High-Power communications site and Palo Verde Gap) under Alternatives B, C, and the Proposed Plan would need to be surveyed for cultural resources before they are available for use. If cultural resources are identified within these areas, impacts to these resources would need to be reduced or mitigated according to applicable cultural resource laws and regulations. Alternative B has the greatest potential to affect cultural resources, because this alternative proposes the greatest number of communications sites.

Table 4-11
SCRMAs Crossed by ROW Corridors by Alternative

SCRMA	Alternative				
	A	B	C	D	E
Big Maria Terraces	N/A	X	X		X
Cibola Valley	N/A				
Laguna Mountains	N/A		X	X	X
Ligurta Area	N/A		X	X	X
Limitrophe	N/A				
Mittry Lake	N/A		X		X
Muggins Mountains	N/A	X	X		
North Gila Mountains	N/A		X	X	X
Palo Verde Point Area	N/A	X	X		X
Sears Point Mesas	N/A				
Senator Wash North	N/A				
Walters Camp	N/A				

G. FROM MINERAL RESOURCES MANAGEMENT

1. Community Pits

Under all alternatives there would be potential direct and indirect impacts to cultural resources from the implementation of community pits (Table 2-31). Alternative B and the Proposed Plan have the greatest number of acres identified for community pits, with 800 and 700 acres respectively. Under Alternative C, 400 acres are identified for community pits, and Alternatives A and D identify 100 acres of land. As stated in Chapter 2 Section 2.19, depending on the results of the site-specific NEPA evaluation, community pit proposals and acreages could be modified to reduce or eliminate direct impacts to cultural resources. If cultural resources cannot be avoided, they would be mitigated pursuant to Section 106 of the NHPA. Community pits have the potential to benefit cultural resources by focusing salable minerals activities, which would reduce impacts to cultural resources that are located elsewhere on the landscape.

2. Withdrawals

To provide protection for important heritage sites and other resource values, 9,100 acres of the proposed Sears Point, Big Marias, and Dripping Springs ACECs would be proposed for withdrawal from mineral entry under the Proposed Plan. Under Alternatives C and D, 5,400 acres of the proposed Sears Point and Dripping Springs ACECs would be proposed for withdrawal from mineral entry. Under Alternatives A and B, 3,700 acres in the Sears Point ACEC, which is the existing withdrawal at Sears Point, would remain withdrawn (Table 4-2). The Big Marias ACEC designation would be recommended for withdrawal, if the current Reclamation withdrawal is revoked (2,900 acres). Some other Reclamation withdrawn lands in the planning area are First Form withdrawals, which are withdrawn from mineral location, providing increased protection to cultural resources.

H. FROM WILDERNESS CHARACTERISTICS MANAGEMENT

The BLM would seek to maintain existing opportunities to experience naturalness within lands that have been identified for wilderness characteristics management. The maintenance of naturalness on these public lands would be accomplished through the relocation, mitigation, or restoration of authorized surface-disturbing activities. These measures may result in indirect benefits to cultural resource values. Public lands that have been identified to maintain wilderness characteristics where indirect beneficial impacts to cultural resources may occur vary by alternative as follows: Alternative A, 0 acre; Alternative B and the Proposed Plan, 48,400 acres; Alternative C, 91,400 acres; and Alternative D, 301,200 acres.

4.7.3 UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts on cultural resources could occur as a result of natural events (e.g., wildfires, floods, etc.). These would primarily affect unknown sites and/or areas with high potential for cultural resources.

4.7.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Land disposals could result in irreversible and irretrievable commitment of cultural resources. Any action that reduces the integrity of cultural resources, particularly those important for scientific use, could result in an irreversible and irretrievable commitment of cultural resources.

4.8 PALEONTOLOGICAL RESOURCES

Impacts to paleontological resources can be characterized as those designations or actions that result in loss, degradation, destruction, or benefits to vertebrate fossils or noteworthy occurrences of invertebrate or plant fossils. Avoidance is the preferred method to prevent loss, but other mitigation can reduce and resolve adverse effects to significant localities, including records and literature searches, sampling or survey by a qualified paleontologist, or other types of paleontological research. Under all alternatives, adverse impacts to paleontological resources would be avoided or minimized to the maximum extent possible through Management Actions and BMPs.

Literature and data sources for the analysis of potential impacts to paleontological resources include the following:

- *Policy and Position Statements, Conformable Impact Mitigation Guidelines Committee* (The Society of Vertebrate Paleontology 2006);
- *Paleontological Resource Monitoring Strategies for the* NPS (USDOI NPS 2003); and
- *Bare Bones Guide to Fire on Cultural Resources* (Winthrop 2004).

The Chapter 2 Paleontological Resources Management section includes an Administrative Action stating that BLM would develop a paleontology sensitivity map to delineate Class 1 (low sensitivity), 2 (moderate sensitivity), 3 (moderate sensitivity), and 4 (high sensitivity) lands in the planning area. All land use actions with a potential to impact vertebrate fossils or noteworthy occurrences of invertebrate or plant fossils would be screened against this map. Until this sensitivity map is created, there is greater likelihood for damage to paleontological resources from ground-disturbing actions and allocations, such as proposed communications sites, ROW Corridors, community pits, Open OHV Management Areas, habitat restoration, water catchments, range improvements, and others.

4.8.1 DIRECT AND INDIRECT IMPACTS

The potential impacts (direct and indirect) to paleontological resources are categorized below as those resulting in loss/degradation or protection/beneficial.

A. LOSS/DEGRADATION

1. From Vegetation Resource Management

Manual forms of vegetation treatment have the potential to adversely impact the stability of paleontological resources and could result in exposure and loss (Koch and Santucci 2003).

Fires could expose sensitive paleontological resources that may be subject to scorching or cracking. Prescribed fire may have adverse impacts on paleontological resources through potential destruction of materials, disturbance of sites, and loss of sites. Wildland fires would have a potential for more impacts than prescribed fire, because wildland fires tend to have greater intensities and durations.

2. From Recreation Management

Recreationists may adversely impact paleontological resources by exposure or damage during activities such as hiking, biking, OHV, and equestrian use, and recreational collection. In addition, fossil theft, vandalism, and intentional disturbance of paleontology sites by the public are a possible adverse impact (Koch and Santucci 2003).

3. From Travel Management

OHV use has the potential to adversely impact paleontological resources through damage to slopes, soils, and vegetation that could affect formations through directly destroying surface fossils, wearing down rock formations, or accelerating soil erosion. Areas allocated as Open OHV Management Areas would receive a higher level of use and would therefore be more susceptible to impacts on potentially occurring paleontological resources. The continued use of inventoried routes could result in impacts to paleontology if the routes occur in areas with high or moderate paleontological sensitivity.

4. From Lands and Realty Management

BLM land use authorizations that involve surface disturbing activities may result in adverse impacts to paleontological resources. Construction activities such as powerlines, pipelines, communications sites, and roads could result in destruction, degradation, and loss in areas with potential for paleontological resources (The Society of Vertebrate Paleontology 2006).

Paleontological resources may occur on the lands identified for disposal under any of the alternatives. If disposal of lands with paleontological resources occurs, the disposal would result in a loss of these resources.

5. From Mineral Resource Management

Mining activities for the production of leasable and locatable minerals and excavation, and removal of salable mineral materials have the potential to disturb or destroy paleontological resources.

B. PROTECTION/BENEFICIAL

1. From Special Designations

Management guidance and directions for special designations in BLM land use planning including those for designated Wilderness Areas and ACECs, as shown in Table 2-1, could also provide coincidental benefits to paleontological resources.

2. From Fish and Wildlife Management

Management directions for proposed WHAs, as identified in Table 2-6, would benefit plant and wildlife species and could also provide coincidental benefits to paleontological resources. Conservation measures within WHAs and management actions to limit disturbance activities would also provide protection to any paleontological resources found within these areas.

3. From Travel Management

Closed OHV Management Areas would have coincidental beneficial impacts by protecting known and unknown paleontological resources from impacts of OHV use.

Designation of areas as limited or closed to OHV use, and limiting OHV travel to inventoried routes until the route designation process is complete, would provide a clearly delineated travel network, reduce route proliferation, and facilitate law enforcement. This would generally have the beneficial impact of controlling impacts of OHV use on paleontological resources.

4. From Visual Resource Management

VRM Class I and II areas would have coincidental beneficial impacts by protecting known and unknown paleontological resources because there would be less development in these areas.

5. From Cultural Resources Management

Areas proposed as SCRMAs, as identified in Table 2-22, would be managed such that short-term and/or long-term benefits to paleontological resources would also be likely to occur. The emphasis to protect cultural values within SCRMAs would also provide protections to potential paleontological resources found within these areas.

6. From Mineral Resources Management

There are beneficial impacts to paleontological resources from mineral resource activities through discovery of fossils during exploration and extraction of minerals.

7. From Wilderness Characteristics Management

The BLM would seek to maintain existing opportunities to experience naturalness within lands that have been identified for wilderness characteristics management. The maintenance of naturalness on these public lands would be accomplished through the relocation, mitigation, or restoration of authorized surface-disturbing activities. These measures may result in indirect benefits to paleontological resource values. Public lands that have been identified to maintain wilderness characteristics where indirect beneficial impacts to paleontological resources may

occur vary by alternative as follows: Alternative A, 0 acre; Alternative B and the Proposed Plan, 48,400 acres; Alternative C, 91,400 acres; and Alternative D, 301,200 acres.

4.8.2 DIFFERENCES BETWEEN ALTERNATIVES

Table 4-12 shows a comparison of the alternatives for the number of acres of ground-disturbing activities that have a potential to adversely affect paleontological resources and the number of acres included in designations and allocations that have a potential to benefit paleontological resources.

Table 4-12
Proposed Activities Impacting Paleontological Resources by Alternative (acres)

Loss/Degradation	Alternative				
	A	B	C	D	E
Adverse Impacts					
Back Country Byways	0	220	76	0	21
Communications Sites	200	300	300	200	300
Community Pits	100	800	400	100	700
Land Disposals	19,100	46,900	10,500	8,200	11,900
Open OHV Management Areas	400	3,800	2,400	400	400
ROW Corridors	74,600	129,900	129,900	91,300	121,700
VRM Class III and IV	1,135,000	608,400	589,100	500,800	535,100
Total Acres*	1,154,300	685,400	634,600	521,300	580,400
Beneficial Impacts					
ACECs	6,700	6,700	28,900	491,900	28,900
Closed OHV Management Areas (non-wilderness)	1,200	3,200	3,500	66,000	5,100
SCRMAs	0	21,200	29,900	22,200	28,500
VRM Class II	15,200	541,800	561,100	624,800	618,600
WHAs	538,100	977,100	1,035,300	770,400	1,039,200
Wilderness	167,800	167,800	167,800	167,800	167,800
Wilderness Characteristics	0	48,400	91,400	301,200	48,400
Withdrawal acres (non-wilderness)	6,500	3,600	5,400	8,300	12,000
Total Acres*	591,100	1,006,400	1,078,500	1,026,900	1,064,900

OHV = off-highway vehicle; SCRMA = Special Cultural Resource Management Area
VHA = Vegetation Management Area; VRM = Visual Resource Management
*Non-overlapping total

4.8.3 UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts could occur as a result of natural events (e.g., wildfires, floods, etc.). Impacts could also occur from wildlife (primarily deer and bighorn sheep), livestock, wild horse, and burro behavior and travel patterns. These would primarily affect unknown sites and/or areas with high potential for paleontological resources.

4.8.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Land disposals could result in irreversible and irretrievable commitment of paleontological resources. Unknown paleontological resources could be located on disposed lands.

4.9 VISUAL RESOURCES

This section provides a discussion of the methodology and criteria used to assess impacts to visual resources that could occur as a result of implementing the alternatives. The assessment of impacts would utilize the Visual Contrast Rating component of the BLM's VRM System.

The overall goal of the BLM's VRM system is to minimize visual impacts and ensure that measures are applied to mitigate potentially adverse visual impacts. The Visual Contrast Rating System is a formal process utilized by BLM to identify and analyze the potential visual impacts of projects and management-related activities. The basic analysis in this rating system focuses on the degree to which a project would contrast with the existing landscape causing adverse impacts to the aesthetic quality of the area.This depends on the visual contrast created between a given surface-disturbing activity and the existing landscape. Visual contrast is measured by comparing the project/activity's features with the major features in the existing landscape. The basic design elements of form, line, color, and texture are used to make this comparison and describe the resulting visual contrast.

The analysis of potential impacts to visual resources was based on review of existing literature and the expertise of BLM resource specialists at the YFO. Literature sources include but are not limited to the following:

- BLM Manual Section 8400—*VRM*. BLM's policy is that it has a basic stewardship responsibility to identify and protect visual values on all BLM lands. The manual provides specific direction in inventorying, evaluating, and determining impacts to visual resources.
- Information Bulletin No. 98-135.
- IM No. 98-164.

4.9.1 DIRECT AND INDIRECT IMPACTS

Potential impacts (direct and indirect) to visual resources are categorized below into enhancement/beneficial, loss, and degradation/alteration. Impacts from management actions and decisions would in effect be self-mitigating, in that the final approval of actions would be based on meeting the visual quality objectives of the VRM Class in which they take place. Design guidelines to avoid, minimize, or reduce visual impacts are included in Chapter 2, Section 2.13, BMPs.

A. LOSS

1. From Vegetation Resource Management

Vegetative treatments include thinning, mechanical removal, herbicide application, or conversion; management of non-native and invasive species in the Limitrophe Division of the lower Colorado River, revegetation and other landscape restoration efforts, riparian area management, fire management and fuels reduction. Vegetation treatment activities may result in short-term adverse impacts to visual resources until treatments take effect (temporary loss of vegetative cover).

2. From Fish and Wildlife Management

Activities include development of wildlife waters, fences, forage enhancement for wildlife, and associated elements. These actions could result in an adverse alteration to the visual landscape unless designed to blend in with the surrounding landscape.

3. From Travel Management

Within designated Open OHV Management Areas, motorized travel is not limited to existing or inventoried routes, and visitors may travel cross-country wherever they choose. Increased soil disturbances and plant trampling would be expected within the entire acreage of proposed Open OHV Management Areas. This could affect visual resources by impacting the aesthetic quality of the on-site vegetation and desert landscape.

4. From Lands and Realty Management

Actions that may have an adverse impact to visual resources through the loss of vegetative cover and development of facilities include: agricultural leases; ROW use and development; ROW Corridor alignments, sites and associated structures; communications facility sites and associated structures; and siting, construction, and appearance of other facilities, signs, buildings and structures.

Disposal of BLM lands would potentially have an adverse impact on visual resources depending on the use of land after it leaves Federal ownership. Disposal of VRM Class II lands could result in the conversion of areas of relatively high visual quality to land uses and associated impacts that would reduce the visual quality of those lands. This would be particularly true if the disposal lands were converted to land uses requiring mass grading.

5. From Mineral Resource Management

Potential mineral extraction or mining operation could cause adverse impacts to visual resources through the loss of vegetative cover and soils, as well as a modification to the natural topography and landscape of an area. Due to the harsh climatic conditions and lack of rainfall within the planning area, revegetation efforts are largely unsuccessful in upland desert environments, causing long-term impacts to visual resources.

B. DEGRADATION/ALTERATION

1. From Special Designations

Potential adverse visual impacts could result from Back Country Byways because these designations could trigger increased use and associated surface disturbance and litter. However, Back Country Byways in the planning area would be located on previously existing roads or OHV routes and therefore would not alter the existing character of the landscape.

Construction activities related to the installation of the proposed NRT extension, Anza Trail, and their associated trailhead facilities would cause temporary adverse impacts to visual resources. Continued maintenance of these trails and their trailheads would create permanent adverse impacts to visual resources. Use of standardized BMPs during construction and trail layout and design would strive to minimize impacts to visual resources as much as possible.

2. From Recreation Management

Concentrated visitor use of designated camping and day-use areas, along with the installation of recreation facilities and signs, could result in adverse impacts to visual resources of these areas. Impacts may include the loss of vegetative cover, increased litter, and increased vehicle and human presence. As the population in the planning area continues to increase, recreational activities on BLM-administered lands are also likely to increase, which would result in additional impacts to visual resources.

3. From Lands and Realty Management

Wind and solar energy generating facilities would only be authorized in VRM Classes III and IV. Construction associated with these activities would not impact VRM Classes I and II.

C. ENHANCEMENT/BENEFICIAL

1. From Special Designations

Management actions (allowable uses) for special designations in BLM land use planning including those for designated Wilderness Areas, NHTs, NRTs, National Scenic Byways, and ACECs, as shown in Table 2-1, could also provide coincidental benefits to visual resources. No new Wilderness Areas would be proposed; existing Wilderness would continue to be managed under VRM Class I objectives.

2. From Vegetation Resource Management

Vegetative treatments would generally be implemented to restore or enhance the natural conditions of the public lands, and would have long-term beneficial impacts to visual resources independent of VRM designations.

3. From Fish and Wildlife Management

Management directions for proposed WHAs would benefit plant and wildlife species and could also provide coincidental benefits to visual resources from limiting BLM-authorized actions that cause surface disturbances, which fragment or degrade habitat and aesthetic quality.

4. From Travel Management

Within designated Closed OHV Management Areas, no motorized travel would be allowable. Visual resources would be maintained or enhanced within the proposed Closed OHV Management Areas.

5. From Cultural Resource Management

The view sheds of important cultural resources would be maintained when the settings significantly contribute to the resources' scientific, public, traditional, or conservation values. This management approach to cultural resources within the planning area would also have concurrent beneficial impacts to visual resources.

Areas proposed for designation as SCRMAs would be managed such that benefits to visual resources would also occur because management actions for these designations limit or mitigate disturbance and modification of the landscape to maintain site context and aesthetic quality.

6. From Wilderness Characteristics Management

The BLM would seek to maintain existing opportunities to experience naturalness within lands that have been identified for wilderness characteristics management. The maintenance of naturalness on these public lands would be accomplished through the relocation, mitigation, or restoration of authorized surface-disturbing activities. These measures may result in the maintenance and/or improvement of visual resource values. Public lands that have been identified to maintain wilderness characteristics where indirect beneficial impacts to visual resource values may occur vary by alternative as follows: Alternative A, 0 acre; Alternative B and the Proposed Plan, 48,400 acres; Alternative C, 91,400 acres; and Alternative D, 301,200 acres.

4.9.2 DIFFERENCES BETWEEN ALTERNATIVES

The range in differences in potential impacts to visual resources is reflected by Table 4-13, which shows the number of acres that each alternative would designate to the four VRM Classes. The Proposed Plan comprises 786,300 acres as Classes I and II. This represents approximately 60 percent of the planning area.

Table 4-13
VRM Land Use Designations by Alternative (acres)

VRM Class	Lands Actions by Alternative				
	A	B	C	D	E
I	167,800	167,800	167,800	167,800	167,800
II	15,200	541,800	561,100	624,800	618,600
III	1,135,000	552,300	567,500	496,400	512,400
IV	0	56,100	21,600	4,400	19,200
Total (acres)	1,318,000	1,318,000	1,318,000	1,318,000	1,318,000

4.9.3 UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts would potentially occur as a result of uncontrollable natural events (e.g., floods and storm events) that create visual contrast levels exceeding the visual quality objectives of a given land area.

Unavoidable impacts would potentially occur as a result of non-discretionary activities of cooperators or co-managers of BLM-administered lands. BLM and Reclamation co-manage public lands along the lower Colorado River. Reclamation is mandated to complete work within the Colorado River floodway as needed to ensure water delivery and flood protection. Reclamation's actions which could adversely impact visual resources on these co-managed lands include maintaining the levee system, placing rip-rap boulders along the shoreline, quarrying construction materials from nearby pits, placing dredged sediments from the river in upland areas, and regulating the water levels within the river and Senator Wash Reservoir.

4.10 WILDERNESS CHARACTERISTICS

BLM IM No. 2003-275-Change 1 provides guidance for the analysis of impacts to lands identified by BLM as having wilderness characteristics. Any actions that have the potential to detract from the public's ability to experience naturalness, solitude, and primitive and unconfined recreation are considered impacts to lands with wilderness characteristics.

The analysis of potential impacts to lands with wilderness characteristics was based on review of existing literature and the expertise of BLM resource specialists at the YFO.

4.10.1 DIRECT AND INDIRECT IMPACTS

Potential direct and indirect impacts to lands with wilderness characteristics are categorized below into those that may degrade or enhance opportunities to experience naturalness, solitude, and primitive and unconfined types of recreation.

A. DEGRADATION

1. From Vegetation Resource Management

Non-native and invasive species treatments and wildland fire suppression and management activities all have the potential to temporarily detract from the public's ability to experience naturalness and solitude within lands with wilderness characteristics.

2. From Fish and Wildlife Management

The construction of wildlife water catchments and wildlife forage enhancement projects would temporarily detract from the public's ability to experience naturalness and solitude in lands with wilderness characteristics. These types of projects would not cause significant long-term impacts

to naturalness and solitude, either because they are temporary disturbances or because construction of the water catchments is designed to blend seamlessly into the existing landscape.

3. From Recreation Management

Increasing visitor use throughout the entire planning area decreases individuals' ability to experience solitude in lands with wilderness characteristics. These impacts are more prominent during the cooler winter months, when there is an influx of winter visitors recreating throughout the planning area. The ability to experience solitude and naturalness are also decreased during hunting seasons, when there are generally more people discharging firearms throughout the planning area.

4. From Travel Management

Unpaved OHV routes minimally impact the naturalness of lands with wilderness characteristics. Existing OHV routes also increase the likelihood of meeting or hearing other public land visitors, which detracts from the public's ability to experience solitude and naturalness. However, the routes provide essential access into these lands for the public to experience naturalness, solitude, and primitive and unconfined recreation.

5. From Mineral Resource Management

Potential mineral extraction or mining operation could cause adverse impacts to the public's ability to experience naturalness, solitude, and primitive and unconfined recreation in lands with wilderness characteristics. These impacts would primarily come from the use of motorized and mechanized equipment and the creation of tailing piles, pits, access roads, and structures. These activities generally remove vegetation and surface soils, and increase noise, dust, and vehicular traffic in the immediate area of operations. These impacts would be mitigated through standard BMPs identified in Chapter 2.

B. ENHANCEMENT/BENEFICIAL

1. From Vegetation Resource Management

Non-native and invasive species treatments and wildland fire suppression and management activities would be expected to provide long term beneficial impacts to the naturalness of lands with wilderness characteristics.

2. From Fish and Wildlife Management

Compatible wildlife management activities within Wilderness Areas, including the maintenance and enhancement of existing wildlife water catchments, generally assist in preserving the Wilderness' ecological values. In addition, wildlife water enhancement projects generally aim to naturalize the appearance of the catchments, which reduces man's imprint and increases naturalness within wilderness.

4.10.2 DIFFERENCES BETWEEN ALTERNATIVES

Differences in potential impacts to the public's ability to experience naturalness, solitude, and primitive and unconfined recreation opportunities in lands with wilderness characteristics are quantified for each alternative as shown in Table 4-14.

Table 4-14
Lands Proposed to be Managed to Maintain Wilderness Characteristics
Differences by Alternative (acres and miles)

Element	Alternative				
	A	B	C	D	E
Inventoried routes in lands with wilderness characteristics (miles)	0	32	80	469	32
Roads per square mile in lands with wilderness characteristics (miles)	0	0.400	0.563	1.002	0.400
Lands proposed to be managed to maintain wilderness characteristics (acres)	0	48,400	91,400	301,200	48,400
ROW Corridors in lands with wilderness characteristics (acres)	0	0	0	3,600	0
Lands with wilderness characteristics under Military Training Route Airspace (acres)	0	37,700	57,000	250,200	37,700

A. FROM SPECIAL DESIGNATIONS

Under Alternative D, a substantial portion of the proposed lands with wilderness characteristics would overlap with the proposed Palomas Plain ACEC. This protective ACEC designation would compliment the maintenance and enhancement of naturalness and primitive types of unconfined recreation, and would benefit lands with wilderness characteristics.

B. FROM VEGETATION RESOURCES MANAGEMENT

Treatment of non-native invasive species could affect the experiences found in lands managed for wilderness characteristics. For example, treatments are under consideration for Sahara mustard in sand dunes north of the Town of Quartzite. Under Alternative D, more parcels of land with wilderness characteristics contain non-native invasive species.

C. FROM FISH AND WILDLIFE MANAGEMENT

The proposed Palomas Plain WHA would overlap with lands with wilderness characteristics under Alternatives B, C, and the Proposed Plan. The stated Desired Future Conditions of this WHA would generally compliment the maintenance and enhancement of naturalness, and would benefit lands with wilderness characteristics.

Under Alternatives C and D, additional lands were identified to maintain wilderness characteristics. The potential impacts to naturalness, solitude, and primitive and unconfined

recreation from seasonal hunting and wildlife habitat improvement projects, as described in Section 4.10.1 above, would likely be more common.

D. FROM LANDS AND REALTY MANAGEMENT

Under Alternative D, 3,600 acres of a proposed ROW Corridor north of the Town of Quartzsite would be located on lands proposed to be managed to maintain wilderness characteristics. This would degrade the primitive and unconfined recreation opportunities and opportunities to experience naturalness in this area, if visible structures were placed within ROW authorizations.

E. FROM MINERAL RESOURCES MANAGEMENT

Alternative C proposes to manage 43,000 more acres of public land to maintain wilderness characteristics than Alternative B and the Proposed Plan. Alternative D proposes to manage 252,800 more acres of public land to maintain wilderness characteristics than Alternative B and the Proposed Plan. The potential impacts to naturalness, solitude, and primitive and unconfined recreation from mining and mineral leasing activities, as described in Section 4.10.1 above, would likely be more common.

4.10.3 UNAVOIDABLE ADVERSE IMPACTS

A. FROM MILITARY ACTIVITIES AND OPERATIONS

Over flights of military aircraft is common throughout the planning area, as most BLM lands are located beneath designated Military Training Routes. Military training operations and weapons testing can also be heard from BLM lands that are adjacent to or near YPG. These activities generate noise which would detract from the public's ability to experience naturalness and solitude in lands with wilderness characteristics.

B. FROM MINERAL RESOURCES MANAGEMENT

Potential mining claim activities and operations would cause long-term negative impacts to the public's ability to experience naturalness, solitude, and primitive and unconfined recreation in lands with wilderness characteristics. These impacts would primarily come from the use of motorized and mechanized equipment and the creation of tailing piles, pits, access roads, and structures. These activities generally remove vegetation and surface soils, and increase noise, dust, and vehicular traffic in the immediate area of operations.

Under all alternatives, unless lands are specifically withdrawn from mineral entry, the lands would remain open to mineral entry and claimants would have the right to legal access and development of their mining claims. These rights include the use of approved equipment and machinery which may impact the solitude and naturalness of the area to the recreating public.

Mineral material sales are discretionary actions and BMPs would be used to minimize impacts to the recreating public.

4.11 SPECIAL DESIGNATIONS

4.11.1 WILDERNESS

The primary potential impacts to Wilderness within the planning area may occur from range and wildlife habitat improvement, maintenance projects, and access routes provided for inholdings. The provisions of the Wilderness Act would continue to be upheld including the prohibition of commercial activities, motorized access, and infrastructure developments.

The analysis of potential impacts to designated Wilderness Areas was based on review of existing literature and the expertise of BLM resource specialists at the YFO. Literature sources include but are not limited to the following:

- Wilderness Act of 1964;
- Arizona Desert Wilderness Act of 1990;
- California Desert Protection Act of 1994; and
- BLM *Regulations for Wilderness Management* at 43 CFR 6300, BLM *Manuals* 8560-8561, and BLM *Handbook* H-8560-I.

A. DIRECT AND INDIRECT IMPACTS

Potential impacts to Wilderness include any actions that may degrade an area's naturalness or untrammeled appearance, reduce opportunities to participate in primitive and unconfined types of recreation, or decrease the liklihood to experience solitude.

1. Degradation

a. From Vegetation Resource Management

Potential short- and long-term effects could result from non-native and invasive species management and/or treatment, and wildland fire suppression activities and management responses. To minimize potential impacts to Wilderness, MIST identified in the Interagency Standards for Fire and Aviation Operations would be applied when suppressing wildland fires in Wilderness Areas.

b. From Fish and Wildlife Management

Development of wildlife and range improvements, including wildlife waters, could impact the naturalness of Wilderness. These activities would also temporarily degrade the project area's untrammeled appearance, temporarily reduce opportunities to participate in primitive and unconfined types of recreation, and temporarily decrease the likelihood to experience solitude. The maintenance and/or installation of additional structures to support pre-existing rights would need to be in accordance with VRM Class I guidance, the Wilderness Act of 1964, and any applicable Wilderness management plan in effect for that area.

c. From Recreation Management
Potential short-term effects on solitude could result from nearby hunting activities or discharge of firearms. Recreational use could degrade the soils, landscape, and natural features of Wilderness within the planning area.

d. From Lands and Realty Management
Nonconforming but accepted uses permitted by the Wilderness Act and subsequent laws, such as ROW Corridors that existed before the Act, have the potential to degrade Wilderness, but would be managed in a manner that would prevent unnecessary or undue degradation of the area's wilderness character. Nonconforming uses are the exception rather than rule; therefore, emphasis would be placed on maintaining wilderness character.

Pre-existing access rights to inholdings could impact the naturalness and solitude of Wilderness. Potential short-term impacts on naturalness and solitude would result from dust emissions and noise from vehicle travel along nearby routes.

e. From Mineral Resource Management
Potential short- and long-term effects on naturalness, solitude, and primitive unconfined recreation would result from activities at mining claims adjacent to or near Wilderness that result in noise disturbance and dust emission.

f. From Livestock Grazing
Livestock grazing activities and facilities, such as fence construction and livestock waters, impact the naturalness of Wilderness. These activities would also temporarily degrade the planning area's untrammeled appearance, temporarily reduce opportunities to participate in primitive and unconfined types of recreation, and temporarily decrease the likelihood to experience solitude. The maintenance and/or installation of additional structures to support pre-existing rights would need to be in accordance with VRM Class I guidance, the Wilderness Act of 1964, and any applicable Wilderness management plan in effect for that area.

2. Enhancement

a. From Vegetation Resources Management
Actions to remove non-native invasive vegetation through non-mechanical means would benefit Wilderness by restoring the naturalness of the landscape in these areas.

b. From Recreation Management
SRMAs and RMZs have been proposed to identify and enhance targeted recreational opportunities and experiences. There is a potential for beneficial impacts to Wilderness as a result of these allocations and subsequent management for them because some recreational use pressure may be re-concentrated onto other areas.

c. From Lands and Realty Management
Purchasing inholdings within Wilderness Areas from willing sellers would benefit Wilderness by consolidating ownership of these areas.

B. UNAVOIDABLE ADVERSE IMPACTS

Military training overflights of aircraft would impact the naturalness and solitude of Wilderness. Adverse impacts from noise and visual environment would occur, causing degradation in the values of Wilderness Areas.

Human and drug smuggling activities and the associated Border Patrol law enforcement actions that respond to these illegal activities have the potential to cause increased helicopter and vehicle traffic, litter, trampling, and noise. These unavoidable adverse impacts would affect the public's opportunity to experience the solitude, naturalness, and untrammeled nature of these resources, such as the Wilderness Areas.

4.11.2 NATIONAL TRAILS

There is one NHT (Anza Trail), and one NRT (Betty's Kitchen Trail) within the planning area. The primary impacts to these trails would be any actions that would compromise the ability of the areas to meet desired future conditions or detract from their intrinsic qualities.

The analysis of potential impacts to National Trails was based on review of existing literature and the expertise of BLM resource specialists at the YFO.

A. DIRECT AND INDIRECT IMPACTS

Potential impacts to National Trails are categorized below into those that may degrade or enhance intrinsic qualities.

1. Degradation

a. From Vegetation Resources Management

Any vegetation treatments, such as hazardous fuel reduction activities, that are undertaken to restore the natural condition of lands adjacent to the trails may have temporary adverse impacts by reducing vegetative cover and overall scenic values.

b. From Lands and Realty Management

Land use authorizations that include construction activities may have adverse impacts on trails. Portions of the Anza Trail located within the Gila River Valley have many new developments occurring in the vicinity of the trail. These developments and the expansions of the urban environment would have adverse impacts to the scenic value of the trail system.

Authorizations within designated ROW Corridors that cross the trail system may cause adverse impacts to the scenic value of trails.

Land disposals could have adverse impacts on trail corridors. Disposal actions may have an adverse impact on trail alignment, requiring a change or reduction in the trail system.

Limited public lands along the Anza Trail would limit BLM management activities.

c. From Mineral Resource Management
Mineral activities could adversely impact the enjoyment of trail systems. Mineral activities may have adverse impacts by reducing or removing portions of the trail system.

2. Enhancement/Beneficial

a. From Special Designations
The maintenance and protection of relevant and important natural and cultural resource values within the Gila River Terraces and Trails ACEC (under Alternative D) and the Sears Point ACEC (under all alternatives) would also help to retain important resource values along the Anza Trail.

The responsible development of the Sears Point ACEC interpretive area along the Anza Trail would enhance opportunities along the trail for cultural resource viewing and appreciation.

b. From Vegetation Resource Management
Any vegetation treatments that would be undertaken to restore the natural condition of trails may be beneficial to the overall scenic value of trails.

c. From Visual Resource Management
Potential scenic quality benefits would result from implementing visual management objectives.

d. From Cultural Resources Management
Any cultural resource inventory, monitoring, protection, and interpretation projects that would be undertaken at significant heritage sites along the Anza Trail would be beneficial to the overall values of the trail corridor.

e. From Mineral Resource Management
Withdrawal of mineral activities would have a beneficial impact on trail systems.

B. DIFFERENCES BETWEEN ALTERNATIVES

From Visual Resource Management
VRM classes vary by alternative for National Trails (Table 4-15).

Table 4-15
National Trails per VRM Class by Alternative (miles)

VRM Class	Alternative				
	A	B	C	D	E
VRM Class I	0	0	0	5	0
VRM Class II	0	17	12	7	12
VRM Class III	21	9	9	9	9
VRM Class IV	0	0	0	0	0
Total	21	26	21	21	21

C. UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts to trails would occur from natural events (as with other resources), including floods and wildland fire.

West of the Mohawk Mountains, BLM administers a very small amount of land within the congressionally-designated Anza Trail corridor. On lands in this area where the BLM has no jurisdiction, private land owner rights and the operation and maintenance of irrigation district canals would take precedence over the installation and management of a recreational Anza Trail. This may limit the BLM's ability to develop use prescriptions, interpretive facilities, and riparian restoration projects that would enhance visitor experiences along this portion of the Anza Trail. East of the Mohawk Mountains, BLM manages much more land within the congressionally-designated Anza Trail corridor, although BLM land is still intermingled with a substantial amount of private and Arizona State Trust land. The alignment of the Anza Trail would be impacted by the willingness of these other land owners to provide easements and ROWs for a recreational trail through their property. BLM has proposed to create a cooperative agreement to establish a recreational Anza Trail to the best of all interested stakeholders' collective abilities.

The extension of the Betty's Kitchen NRT proposed under Alternative B would be located within the Mittry Lake Wildlife Area, which BLM cooperatively manages with AGFD and Reclamation under a lease from the USFWS. The alignment and visitor use limitations of the proposed NRT extension would be dependent upon the minimization of any impacts to wildlife habitat, the primary purpose for which the Mittry Lake Wildlife Area is managed.

The Anza Trail could be negatively impacted by U.S. Army Corps of Engineers releases of flood water from Painted Rock Dam, which regulates water levels within the Gila River floodplain. The on-the-ground alignment of a recreational Anza Trail would attempt to minimize the potential of water releases negatively impacting the trail and trail facilities.

Noise and dust generated from Reclamation activities at their quarry pit located near Laguna Dam could negatively impact visitor experiences along the Betty's Kitchen NRT and its proposed extension.

4.11.3 NATIONAL BYWAYS

There are up to seven National Back Country Byways and one National Scenic Byway under consideration in the range of alternatives within the planning area. The primary impacts to the proposed National Byways would be from actions that would compromise or detract from the byways' intrinsic qualities, which have been identified in Chapter 2. These intrinsic byway qualities, which are considered unique, irreplaceable, or distinctly characteristic of the planning area, include scenic, historic, recreational, cultural, and natural resources.

The analysis of potential impacts to National Byways was based on review of existing literature and the expertise of BLM resource specialists at the YFO. Literature sources include but are not limited to the following:

- Back Country Byway Designation reports and plans; and

- Summary of Quantifying the Economic Impacts of Scenic Byway Designation (America's Byways Resource Center 2001).

A. DIRECT AND INDIRECT IMPACTS

Potential impacts to National Byways are categorized below into those that may degrade or enhance intrinsic qualities.

1. Degradation

a. From Vegetation Resource Management

Invasive species may be introduced into proposed National Byways by vehicle travel. Vegetation treatments may occur along proposed National Byways to restore and enhance the natural conditions of the surrounding public lands. These actions would have temporary adverse impacts to the byways, such as limiting public use during equipment operation, prescribed burns, and herbicide applications, and decreasing visibility and scenic values during and immediately after implementation.

b. From Recreation Management

The designation of Back Country Byways may increase visitor use on the proposed routes. Increased visitation has the potential to cause more user conflicts along the routes between OHV riders, campers, and hunters. These conflicts would be more prominent during the winter hunting seasons, when there are a high number of both campers and hunters within the planning area

c. From Travel Management

The proposed Martinez Lake Open OHV Management Area is located adjacent to the Red Cloud Road Back Country Byway proposed under Alternative B. Visitor use within the Open OHV Management Area would cause increased disturbances to soils and wildlife habitat, which would adversely impact the scenic and natural qualities along this small portion of the Back Country Byway. However, these impacts would be minimal, as the proposed Open OHV Management Area is adjacent to the Back Country Byway for only one mile, and the entire Back Country Byway is 50 miles long.

Increased visitor use on proposed Back Country Byways would increase the likelihood of the public developing undesignated pull-offs so that OHVs traveling in opposite directions would be able to pass each other and for dispersed camping purposes. These impacts would be allowable under BLM Arizona Policy (BLM Arizona IM No. 2004-005-007), which enables the public to pull off of OHV routes up to 100 feet from the centerline for these purposes. Increased monitoring and maintenance of the proposed Back Country Byways by BLM and interested partners would reduce the likelihood of new OHV routes developing from the byways.

d. From Lands and Realty Management

Underground utility lines would have temporary adverse impacts to scenic qualities of proposed National Byways. These impacts would be most prevalent during installation and maintenance of the utility lines, but would otherwise be largely unnoticeable. Power lines, such as those paralleling Highway 95 and the western Kofa NWR boundary, cause long term adverse impacts to the scenic qualities of the proposed National Byways. ROW Corridors also cross other

proposed National Byways at various points along the routes. As population growth in the western U.S. continues to grow, there is an anticipated increase in the number of utility lines and communications sites throughout the planning area, which would cause additional impacts to the scenic qualities of the proposed National Byways.

e. From Mineral Resource Management

Surface disturbance associated with BLM-authorized locatable minerals activities near National Byways would have adverse impacts on scenic values, as would the development of BLM community pits near National Byways.

2. Enhancement/Beneficial

a. From Special Designations

Proposed Back Country Byways traversing ACECs and running alongside of designated Wilderness would provide additional interpretation opportunities to educate the public about the importance of the resources within these special designations. This would enrich and diversify the recreational opportunities along the proposed Back Country Byways.

b. From Vegetation Resource Management

Vegetative treatments could cause long-term beneficial impacts to the scenic, natural, and recreational qualities of the proposed National Byways by reducing the occurrence of non-native invasive species and encouraging the growth of native plants.

c. From Fish and Wildlife Management

Range and wildlife improvements, such as habitat restoration and water catchments would increase the potential for wildlife viewing along the proposed Back Country Byways. This would improve the scenic and natural values for which the byways were proposed.

d. From Wild Horse and Burro Management

Wild horses and burros found near the proposed Red Cloud Road Back Country Byway and Highway 95 Scenic Byway would have beneficial impacts by providing visitors with wild horse and burro viewing opportunities.

e. From Visual Resource Management

The scenic values along proposed National Byways would be protected most within VRM Class II areas, which only allow a minimal amount of contrasts to the existing landscape. The scenic values of the byways within VRM Class III and IV areas would have less protection, although contrasts to the existing landscape from project proposals would still be mitigated. The scenic values of proposed byways traversing non BLM-administered lands would have no protection under the BLM's VRM System. Several areas adjacent to proposed Back Country Byways are proposed as VRM Classes I and II. This designation and the associated management objectives would have beneficial impacts to Back Country Byways through protection and enhancement of scenic values.

f. From Cultural Resource Management

Cultural resource public use sites, which are components of byway designations, would have a beneficial effect on Back Country Byways by providing visitors with cultural resource viewing opportunities.

B. DIFFERENCES BETWEEN ALTERNATIVES

1. From Special Designations

Under Alternative B, C, and the Proposed Plan the Agua Caliente Back Country Byway travels across the Sears Point ACEC. Under Alternatives B and C the Gold Nugget Back Country Byway travels across the Dripping Springs ACEC. Otherwise, there is no overlap between proposed special designations (ACECs, Wilderness, NHTs, and NRTs) and Back Country Byways by alternative.

2. From Visual Resource Management

VRM classes vary by alternative for proposed National Byways (Table 4-16).

Table 4-16
Miles of National Byways on BLM-administered Lands and within VRM Classes by Alternative

Actions Affecting National Byways	A	B	C	D	E
National Byways on BLM-administered land	0	153	97	0	44
National Byways on non BLM-administered land	0	68	43	0	43
National Byways within VRM Class II	0	79	11	0	0
National Byways within VRM Class III	0	70	78	0	41
National Byways within VRM Class IV	0	3	8	0	4

C. UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts to Back Country Byways would occur from natural events (as with other resources), including floods and wildland fire.

Other land management agency activities and decisions could adversely impact the identified intrinsic qualities of the proposed National Byways. In the Proposed Plan, a total of 43 miles, or approximately 30 percent, of the proposed National Byways are located on non-BLM-administered lands. The YPG collectively manages 42 miles of the proposed Red Cloud Road Back Country Byway and Highway 95 Scenic Highway. Any decisions made by YPG to install permanent facilities within the view shed of these routes would detract from the visual qualities of the proposed National Byways. YPG military operations and testing would detract from the scenic and natural qualities of these byways, however, many visitors are extremely interested in such activities. In general, military operations along the byways would highlight the diversity of Federal agency missions within the planning area and could be viewed as an asset to the proposed byways intrinsic qualities. A portion of the proposed Red Cloud Road Back Country Byway which travels along the levee road of the lower Colorado River may be incompatible with

Reclamation's mission. Military activities occurring over and near Back Country Byways may have both beneficial and adverse impacts on the visitor experience.

4.11.4 AREA OF CRITICAL ENVIRONMENTAL CONCERN

The primary potential impacts to ACECs within the planning area may occur from any activity that may disturb the purposes for which the ACEC was designated and the desired future conditions for the areas. Management actions that may cause these impacts include vegetation treatments, range and wildlife habitat improvement and maintenance projects, OHV and route use, construction activities, minerals management, lands and realty authorizations, and recreational activities.

Beneficial impacts would occur from the protection of cultural resources and the protection and restoration of wildlife habitats.

The analysis of potential impacts to ACECs was based on review of existing literature and the expertise of BLM resource specialists at the YFO. Literature sources include but are not limited to the following:

- *Gila River Cultural Area* ACEC *Management Plan* (USDOI BLM 1990c);
- *Big Marias Cultural Resources Management Plan* (USDOI BLM 1984);
- *Anthropogenic Degradation of the Southern California Desert Ecosystem and Prospects for Natural Recovery and Restoration* (Lovich and Bainbridge 1999); and
- LCR MSCP, *Final Programmatic* EIS/*Environmental Impact Report* (USDOI Reclamation et al. 2004).

A. DIRECT AND INDIRECT IMPACTS

Potential impacts to ACECs are categorized below into those that may degrade or enhance the values for which the ACEC areas are considered relevant and important.

1. Degradation

a. From Special Designations

The Anza Trail corridor is common to all alternatives, and would traverse the Sears Point ACEC and the Gila River Terraces and Trails ACEC. Increased recreational use along this trail corridor could impact sensitive resource values within ACECs. Potential impacts would be offset with increased interpretation, protection, and management in sensitive areas.

b. From Vegetation Resource Management

Potential short-term effects would result from non-native and invasive species management and/or treatment. These impacts would be mitigated through BMPs and environmental review and analysis.

c. From Wildland Fire Management

Short-term adverse impacts could occur to natural and cultural resources during prescribed fire management. ACECs that have relevant and important cultural resource values would be especially susceptible to adverse impacts from prescribed fire, which could potentially damage or destroy archaeology sites and associated artifacts, including petroglyph panels; destroy organic materials such as bone, plant, and animal fibers, and wooden elements of structures; and destroy or chemically alter materials used to date sites, such as charcoal. It is possible to determine the predicted temperature and duration of a fire through an area, and possibly to modify burn plans to minimize effects to cultural resources (Winthrop 2004).

Wildland fire suppression activities and management responses would have short-term adverse impacts on resources within ACECs. Impacts from mechanical fire suppression activities would include potential destruction of significant cultural and natural resources. The Chapter 2 management actions for Wildland Fire Management states that the desired conditions and management prescriptions for ACECs would be considered in implementing fire management activities.

d. From Recreation Management

Visitor use may cause adverse impacts to the ACECs' identified cultural and natural resource values. Potential user conflicts may occur within ACECs between cultural resource viewers and hunters/target shooters.

e. From Travel Management

Potential short- and long-term impacts would occur from route use within ACECs. Impacts would include disturbance, erosion, loss of vegetation, potential wildlife mortality from vehicle encounters, and increased visitation to sensitive resource areas (including cultural and wildlife).

Unauthorized cross-country travel can inadvertently damage ACEC values through surface disturbance or provide new vehicular access to previously remote areas. Limiting OHV access to inventoried routes until the route designation process is complete would help to mitigate this issue. However, continued use of inventoried routes in areas of high cultural resource site density and the ability to park within a 200 foot corridor along those routes may increase the potential for damage to significant cultural resources inside ACECs. The amount of damage to cultural sites from vehicles pulling up to 100 feet off of inventoried routes is expected to be greater in areas like ACECs, which contain a higher density of important cultural resources. The Proposed Plan provides greater protection to cultural and natural resources by not allowing vehicles to pull off 100 feet on either side of a road within ACECs.

When hikers, bikers, and equestrian users stray from established trails, impacts would likely occur to indigenous cultural resources like intaglios, cleared areas in the desert pavement, and trail networks. Bikes and horses in particular have the potential to cause adverse impacts to cultural resource values and Native American traditional use values that are located inside ACECs.

f. From Lands and Realty Management

ROWs authorized within designated ACECs may cause adverse impacts to the resources within the ACEC. Management of ACECs would limit ROW development and impacts would be minimized through site-specific mitigation measures and BMPs.

Land use authorizations that include construction activities may have long-term impacts to ACECs. Impacts would include the loss of vegetation and disturbance to wildlife habitat, disturbance to natural systems or processes, and potential impacts to cultural resources.

g. From Mineral Resource Management

Potential short- and long-term adverse effects would result from mining activities within ACECs. Portions of ACECs that are not withdrawn from mineral entry and are still subject to mining have a higher likelihood for damage to the ACEC's relevant and important natural and cultural resource values.

2. Enhancement

a. From Vegetation Resource Management

The relevant and important natural resource values for each ACEC would be enhanced through vegetation management. Chapter 2 provides for the maintenance and improvement of vegetation diversity in accordance with USDA NRCS Ecological Site Guides. Also, treatment for hazardous fuels and non-native invasive species would be allowed in these areas.

b. From Fish and Wildlife Management

Wildlife and range improvement facilities, including wildlife waters, in ACECs where wildlife is one of the area's relevant and important values (such as the Palomas Plain ACEC) could have long-term beneficial impacts as they would provide essential resources for wildlife populations in the area.

c. From Recreation Management

SRMAs and RMZs were allocated to identify and enhance targeted recreational opportunities and experiences. There is a potential for beneficial impacts to significant cultural resources as a result of these allocations and subsequent management for them. The Blythe Intaglios, Dripping Springs, and Sears Point Heritage RMZs overlap with important heritage resource areas inside the Big Marias, Dripping Springs, and Sears Point ACECs respectively. These three Heritage RMZs would be managed to enhance the preservation and interpretation of cultural resource values in these areas.

d. From Travel Management

Limiting OHV use to existing inventoried routes until designated would reduce surface disturbance and route proliferation within ACECs.

Limiting equestrian use within ACECs to existing inventoried trails until designated would protect identified significant and relevant resources, such as cultural and historic properties, sensitive soils, and vegetation, from additional impacts from cross-country equestrian use. Impacts from other non-motorized types of trail uses, such as hiking and mountain biking, would potentially be reduced if users restrict their activities to the identified trail.

e. From Lands and Realty Management

Land acquisitions from willing sellers would have a positive impact on ACECs by consolidating ownership in areas with important resource values. To protect resource values within all ACECs, new land use authorizations would be discouraged and only authorized when it is necessary for resource protection and/or when no reasonable alternative exists. Except for prior existing rights, no surface occupancy for discretionary actions like ROWs would be allowed within ACECs, which reduces the amount of damage that proposed lands and realty actions would have on areas with sensitive resources.

f. From Mineral Resource Management

Existing and proposed withdrawals from mineral entry within ACECs (such as the Big Marias, Dripping Springs, and Sears Point withdrawals) would have beneficial impacts to sensitive resources. Except for prior existing rights, no surface occupancy for discretionary actions like oil and gas leases and mineral material disposals would be allowed within the Dripping Springs and Sears Point ACECs, which reduces the amount of damage that proposed minerals actions would have on areas with sensitive resources. Within all ACECs, new mineral material disposal sites would not be authorized, and protection of resource values take precedence over leasable/locatable minerals.

g. From Cultural Resources Management

Generally, management of cultural resources within ACECs would only enhance and maintain those values for which the ACEC is designated. Allocating individual cultural sites within ACECs to public use, traditional use, experimental use, conservation for future use, or discharged from management has the potential to either enhance or degrade an ACEC's relevant and important values. Under the Proposed Plan there are three Public Use cultural sites within ACECs: the Sears Point central mesas in the Sears Point ACEC, which has been managed for public use since at least 1990; the Blythe Intaglios inside the Big Marias ACEC; and the Dripping Springs site within the Dripping Springs ACEC. Allocating these three cultural sites to Public Use provides for visitor recreational experiences in high use areas while protecting cultural sites found within the ACECs.

B. DIFFERENCES BETWEEN ALTERNATIVES

1. From Special Designations

Impacts may potentially occur to ACEC values from increased vehicle use along Back Country Byways. Under Alternative C, the Gold Nugget Byway crosses the Dripping Springs ACEC. Under Alternatives B, C, and the Proposed Plan, 2.3 miles of the Agua Caliente Byway crosses the Sears Point ACEC. Byways would be managed to minimize impacts to relevant and important resource values inside ACECs. No Back Country Byways would be located within ACECs under Alternatives A and D.

2. From Fish and Wildlife Management

Some of the proposed ACEC areas overlap with WHAs. The desired future conditions of the ACECs and WHAs would complement each other and provide guidance for management of these areas for their values.

3. From Travel Management

Alternative D proposes a total of 58,600 acres of Closed OHV Management Areas within ACECs and would provide the most protection to these areas, which have been identified significant and relevant resource values, from motorized vehicle use (Table 4-15). Alternative C and D propose a 600-acre Closed OHV Management Area and the Proposed Plan proposes a 400-acre Closed OHV Management Area within the proposed Dripping Springs ACEC for desert bighorn sheep and cultural resource protection. Alternative D and the Proposed Plan propose a 1,400-acre Closed OHV Management Area within the Sears Point ACEC. Alternative D also proposes two Closed OHV Management Areas totaling 56,600 acres within the proposed Palomas Plain ACEC.

4. From Lands and Realty Management

Several proposed ROW Corridors intersect with proposed ACECs. A total of 1,900 acres of ROW Corridors would be located under Alternatives B, C and the Proposed Plan within the Big Marias ACEC. In Alternative D, 10,300 acres of ROW Corridors would be located in the Palomas Plains ACEC and 1,900 acres of ROW Corridors would be located in the Gila River Terraces and Trails ACEC (Table 4-17).

5. From Mineral Resource Management

Alternatives C and D would provide additional protections for ACEC values by expanding the withdrawal in the Sears Point ACEC from 3,600 acres to 4,800 acres. The Proposed Plan would provide additional protections for ACEC values by expanding the withdrawal in the Sears Point ACEC from 3,600 acres to 8,500 acres. In addition, Alternative C, D, and the Proposed Plan would establish a 600-acre withdrawal in the Dripping Springs ACEC. Under Alternatives A, D, and the Proposed Plan, Reclamation lands within the Big Marias ACEC (2,900 acres) that are withdrawn from mineral entry would protect important natural and cultural resource values in those areas.

6. From Wilderness Characteristics Management

The BLM would seek to maintain existing opportunities to experience naturalness within lands that have been identified for wilderness characteristics management. The maintenance of naturalness on these public lands would be accomplished through the relocation, mitigation, or restoration of authorized surface-disturbing activities. Under Alternative D, these measures may result in the maintenance and/or improvement of values recognized for the proposed Palomas Plain ACEC. Under the Alternative D, a majority of the 429,200-acre Palomas Plain ACEC proposal would overlap with lands identified to maintain wilderness characteristics, which would provide indirect benefits to the proposed ACEC's recognized values. Proposed ACECs and public lands that have been proposed to maintain wilderness characteristics do not overlap under any of the other PRMP/FEIS alternatives.

Table 4-17
Impacts to ACECs from OHV Area Designations, ROW Corridors, and Withdrawals within ACECs by Alternative (acres)

ACECs	Alternatives				
	A	B	C	D	E
Closed OHV Management Areas within ACECs					
Big Marias	0	0	0	0	0
Dripping Springs	N/A	N/A	600	600	400
Gila River Terraces and Trails	N/A	N/A	N/A	0	N/A
Limitrophe	N/A	N/A	N/A	0	N/A
Palomas Plains	N/A	N/A	N/A	56,600	N/A
Sears Point	0	0	0	1,400	1,400
Walters Camp	N/A	N/A	N/A	0	N/A
Total	0	0	600	58,600	1,800
ROW Corridors in ACECs*					
Big Marias	0	1,900	1,900	0	1,900
Dripping Springs	N/A	N/A	0	0	0
Gila River Terraces and Trails	N/A	N/A	N/A	1,900	N/A
Limitrophe	N/A	N/A	N/A	0	N/A
Palomas Plains	N/A	N/A	N/A	10,300	N/A
Sears Point	0	0	0	0	0
Walters Camp	N/A	N/A	N/A	0	N/A
Total	0	1,900	1,900	12,200	1,900
Withdrawals in ACECs*					
Big Marias	2,900	0	0	2,900	2,900
Dripping Springs	N/A	0	600	600	600
Gila River Terraces and Trails	N/A	N/A	N/A	0	N/A
Limitrophe	N/A	N/A	N/A	0	N/A
Palomas Plains	N/A	N/A	N/A	0	N/A
Sears Point	3,600	3,600	4,800	4,800	8,500
Walters Camp	N/A	N/A	N/A	0	N/A
Total	6,500	3,600	5,400	8,300	12,000

*BLM acres only

C. UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts to ACECs would occur from:

- Under Alternative D, potential impacts from the USIBWC flood capacity project could adversely impact the proposed Limitrophe ACEC.
- Reclamation decisions on upstream Colorado River water may decrease water levels within the proposed Limitrophe ACEC. Decreased water levels would negatively impact the proposed ACEC's wildlife and vegetative resources.
- Uses of existing authorizations consistent with the approved terms and conditions.
- Existing mining claims within proposed ACECs.

4.12 PUBLIC HEALTH AND SAFETY

Besides preserving and protecting natural and cultural resources, BLM's stewardship role extends to protecting public health, safety, and property. BLM is responsible for maintaining facilities and infrastructure; reducing health and safety risks to employees and the public; and protecting public lands from illegal dumping of wastes, theft, destruction of Federal property, misuse of resources, and wildland fires. BLM has a variety of programs to protect public health, safety, and property. No proposals included in the PRMP/FEIS alternatives are expected to cause disproportionate risks or effects to the health or safety of children, as mandated by EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*.

4.12.1 DIRECT AND INDIRECT IMPACTS

Potential impacts are categorized below into Management Actions of LUP decisions that may have an adverse impact on public health and safety. Under all alternatives, the impacts as stated would be avoided or minimized to the maximum extent possible by BMPs and management actions.

A. ADVERSE

1. From Lands and Realty Management

Equipment within communications sites creates electromagnetic fields and other types of radio waves which may be harmful to the recreating public from long-term exposure (Federal Communications Commission 1999).

2. From Mineral Resource Management

Historical mining activity has resulted in many unreclaimed hardrock mines. BLM works with Federal and State partners to identify and evaluate the need for cleanup of sites that are polluting watersheds or causing other kinds of environmental degradation. BLM also works to remedy physical safety hazards at AML_1 sites and to warn visitors to the public lands about the many dangers that abandoned mines can pose. Abandoned mines throughout YFO pose a serious threat to public health and safety through open shafts as well as potential hazardous materials sites.

3. From Public Health and Safety

a. Unexploded Ordnance

The planning area has a long history of military use, including historic use by General Patton. Contemporarily, the source of UXO is YPG, and within the planning area UXO may be encountered in densities that increase with proximity to YPG.

b. Border Issues

Border issues impact public health and safety in a variety of serious and sometimes unpredictable ways. Illegal activities include the smuggling of drugs and people, which can lead to violence.

Appropriate law enforcement presence would be critical to limit negative impacts to the general public and BLM staff.

c. Hazardous Materials
Potentially hazardous materials occur on public lands through unauthorized dumping and waste and litter left by immigrants. These materials may cause impacts to both natural resources and public health and safety.

d. Law Enforcement
BLM's law enforcement program would continue to be responsible for protecting public safety and resources, which it does in partnership with State and local law enforcement agencies.

B. BENEFICIAL

1. From Recreation Management
Two sets of supplementary rules have been established by the YFO to regulate public occupancy, use, and conduct within the LTVAs and seven other developed recreation fee sites. These supplementary rules address a variety of public health and safety protection measures, including disorderly conduct, the use of firearms and weapons, and alcoholic beverages. The enforcement of these rules by the BLM ensures that the YFO's nine recreation fee sites would continue to provide safe, family-oriented recreation opportunities within the planning area. The YFO continuously monitors and updates these Supplementary Rules on an as-needed basis according to the guidance set forth in 43 CFR 8365.1-6. In addition, the various amenities within the YFO's nine recreation fee sites, such a restrooms, refuse containers, and waste water treatment facilities, ensure that the high amounts of public use in these areas do not create adverse impacts to visitors' health and safety.

2. From Fire Management
Every summer the BLM, along with several other adjacent land management agencies, institute fire restrictions within the YFO to reduce the chances of human-caused wildfires. These restrictions prohibit the use of campfires, fireworks, flares, or other incendiary devises. These restrictions protect public health and safety, especially for visitors along the lower Colorado River, where tremendous amounts of hazardous fuels exist from monotypic stands of salt cedar/tamarisk. In addition, the YFO would continue to implement an aggressive fire management program, including hazardous fuel reduction and fuel break projects, near developed recreation fee sites to protect visitor public health and safety.

4.12.2 DIFFERENCES BETWEEN ALTERNATIVES

A. FROM SPECIAL DESIGNATIONS

The Limitrophe is proposed as an ACEC under Alternative D, this would designate 4,500 acres which is located on the International Boundary with Mexico. This area is a known traffic route for illegal immigrants and smuggling. The ACEC designation could benefit proper management of the area and address public health and safety concerns.

B. FROM COORDINATED MANAGEMENT AREAS

The Limitrophe would be allocated as a 4,500 acre CMA under Alternative B and the Proposed Plan. Public health and safety would be emphasized under this management scenario.

C. FROM WILD HORSE AND BURRO MANAGEMENT

Moving the HMA west of Highway 95 under Alternatives B, C, D and the Proposed Plan would indirectly benefit public health and safety management by removing the hazard the horses and burros located in the HMA create if they cross the highway and impede or endanger traffic. Moving the HMA under these alternatives also reduces the number of HMA acres that are within lands with a high likelihood for UXO, which protects both the animals and the people working with them. Under Alternative A, the HMA would not change, and the hazards to the public, BLM employees, and the animals would continue to exist.

D. FROM CULTURAL RESOURCE MANAGEMENT

The Limitrophe Region, proposed as a SCRMA under Alternative C, would allocate 1,400 acres for cultural resources management. Impacts to public health and safety should not be compromised by this action.

4.13 SOCIAL AND ECONOMIC CONDITIONS

Management activities and land use decisions made in implementing the YFO PRMP/FEIS would have effects on local and regional social and economic conditions. The resource capabilities or uses that have the greatest potential to affect the social and economic environment include:

- Livestock Grazing Management
- Mineral Resource Management
    - Leaseable
    - Locatable
    - Salable
- Recreation Management
    - Recreation Fee Programs
- Travel Management
    - OHV Management Areas
- Lands and Realty Management
    - Agricultural Leases
    - Communications Sites
    - ROWs

- Other Lands and Realty Authorizations
- Renewable Energy (solar or wind)

The analysis of impacts to social and economic conditions focused on these resource uses and are discussed below in their respective subsections.

Impacts to social conditions were identified as those management and land use decisions that would potentially affect the social aspects of:

- Changes in use and lifestyle;
- People's interaction with the landscape;
- Community perceptions of quality of life;
- Attitudes and beliefs regarding the local environment, its uses, and sense of place;
- Potential demand on BLM-administered land and resources; and
- Limiting or enhancing community growth.

Impacts to economic conditions were identified as those management and land use decisions that would potentially affect the economic aspects of:

- Revenue,
- Employment/Unemployment,
- Personal Income, and
- County Tax Base.

Economic conditions were analyzed with the IMPLAN Input-Output System for data from Yuma and La Paz counties. IMPLAN enables the user to develop Input-Output models for regions comprising one or more counties, states, or zip code areas. Following are the terms used to determine impacts on economic conditions.

- Output—sales generated within the local economy (the planning area). The total output of the economy has three sub-components: direct sales, indirect sales, and induced sales.
  - Direct sales - occur when a recreational visitor to the Yuma-La Paz economy purchases a meal in a local area restaurant.
  - Indirect sales - occur when businesses make purchases from other businesses. For example, this occurs when a restaurant purchases supplies (e.g., from food wholesalers) or services (e.g., linen cleaning services). In turn each of the indirect businesses must also make purchases from their suppliers.
  - Induced sales - are generated by the purchases of employees and owners of the direct and indirect businesses as they spend their incomes.

- Value-Added—the amount of value created within the economy. In this study it is the amount of value created within the Yuma-La Paz planning area economy. There are four sub-components of value-added.
    - Employee compensation - wages and salaries of workers who are paid by employers, as well as the cost of benefits such as health and life insurance, retirement payments, and non-cash compensation.
    - Proprietary income - payments received by self-employed individuals as income from the private businesses they own.
    - Other property type income - Payments to individuals in the form of rents received on property, royalties from contracts, and dividends paid by corporations are included here as well as corporate profits earned by corporations.
    - Indirect business taxes - excise taxes, property taxes, fees, licenses, and sales taxes paid by businesses. These taxes occur during the normal operation of businesses but do not include taxes on profit or income.

4.13.1 SOCIAL AND ECONOMIC IMPACTS OF LIVESTOCK GRAZING MANAGEMENT

A. SOCIAL IMPACTS FROM LIVESTOCK GRAZING MANAGEMENT

The following are the different types of livestock grazing permittees/leasees and the number of each in the planning area:

- Corporate Rancher permit/lease (none);
- Dependent Family Rancher permit/lease—one permittee, one allotment;
- Diversified Family Rancher permit/lease—one permittee, two allotments;
- Non-dependent Rancher permit/lease (none);
- Non-dependent Working Ranch permit/lease—two (Lazy V and Bishop), two allotments;
- Non-dependent Retired Ranching permit/lease—none; and
- Non-dependent Small Ranch permit/lease—11 permittees, 11 allotments.

Non-dependent ranch permits or leases are held by individuals who do not depend on grazing as a central source of income.

Social impacts to grazing permittees as a result of implementation of the PRMP/FEIS would likely be minimal as the portions of the field office proposed to be made unavailable for grazing have not been grazed for as many as 30 years. There would likely be no noticeable difference in lifestyle to the ranching community or the public at large.

Impacts to people's interaction with the landscape, community perceptions of quality of life, and attitudes and beliefs regarding the local environment, its uses, and sense of place would also likely be minimal because of the small number of livestock and the minor effects of livestock grazing in the planning area as a whole.

The potential demand on BLM-administered land and resources for livestock grazing would likely decline as the population in the planning area increases. Future demand is likely to shift from livestock grazing uses to recreation and other consumer uses.

Livestock grazing would continue to have little or no effect on enhancing community growth or community activities.

B. ECONOMIC IMPACTS FROM LIVESTOCK GRAZING MANAGEMENT

Livestock grazing is a relatively small program within the planning area that affects only a few ranching entities. Currently, there are five allotments with livestock on a total of 428,170 acres of BLM-administered lands within the planning area (Table 4-18).

Over the past five years, an average of 1,958 head of cattle has been grazed annually. Grazing has been predominantly cow-calf operations. Based on the 2003 Arizona Agricultural Statistics, 175 calves per 1,000 head is average. This yielded an estimated 342.65 calves per year on BLM-administered land. According to "BEEF TALK" in *Livestock News* (September 28, 2005), the five year rolling average for calf weaning weights was 588 pounds. The Arizona Agricultural Statistics indicates a price per pound of $.995. Thus, the dollar value of cattle grazed on BLM-administered lands is believed to be 342.65 calves x 558 pounds x $.995 per pound = $190,243 annually (direct dollar value) (Table 4-19). The direct employment impact of 1,958 head of cattle grazed on BLM-administered lands is 1.46 jobs and the total (direct, indirect, and induced) is 3.44 jobs (Table 4-19).

The dollar value (direct) for 10,000 acres of livestock grazing within the planning area is $4,443 ($190,243 divided by 428,170 acres equals 0.4443. Multiply 0.4443 times 10,000 acres equals $4,443). The direct employment value is .03 jobs (Table 4-20). Impacts of livestock grazing within BLM-administered lands are relatively small compared to the overall economy and employment in Yuma and La Paz counties.

During the last five years, an average $29,405 dollars in grazing fees were collected by BLM for the planning area (Table 4-21). The annually adjusted grazing fee is computed by using a 1966 base value of $1.23 per AUM for livestock grazing on public lands in western states. The figure is then adjusted according to three factors; current private grazing land lease rates, beef cattle prices, and the cost of livestock production.

Table 4-18
Perennial/Ephemeral Allotments Available for Grazing by Alternative (acres)

Allotment		Total Acres	Alternative A		Alternative B		Alternative C		Alternative D		Alternative E	
Number	Name		Acres	AUMs	Acres	AUMs	Acres	AUMs	Acres	AUMs	Acres	AUMs
03012[1]	Calhoun	41,744	41,744	1,728	41,744	1,728	41,744	1,728	0	0	41,744	1,728
03022[1]	Crowder-Weisser	234,645	234,645	15,758	234,645	15,758	234,645	15,758	0	0	234,645	15,758
03028	Eagletail	188,230	188,230	1,400	188,230	1,400	188,230	1,400	0	0	188,230	1,400
	Eagletail A	119,643	119,643	0	119,643	0	0	0	0	0	0	0
03047[1]	K Lazy B	123,712	123,712	1,861	123,712	1,861	123,712	1,861	0	0	123,712	1,861
05001[1]	Bishop	28,069	28,060	516	28,069	516	28,069	516	0	0	28,069	516
03064	Palomas	109,408	109,408	0	109,408	0	0	0	0	0	0	0
03075	Scott	119,257	119,257	0	119,257	0	0	0	0	0	0	0
03088	Ehrenberg	57,091	57,091	0	57,091	0	0	0	0	0	0	0
03096	Weisser	64,674	64,674	0	64,674	0	0	0	0	0	0	0
03097	Martinez	66,044	66,044	0	66,044	0	0	0	0	0	0	0
05000	Hyder Ranch	10,247	10,247	960	10,247	960	0	0	0	0	0	0
05003	Trust #1347	1,440	1,440	144	1,440	144	0	0	0	0	0	0
05006	White Wing Ranch	523	523	36	523	36	0	0	0	0	0	0
05036	Palomas Ranch	4,577	4,577	424	4,577	424	0	0	0	0	0	0
05044	Caliente Farms	2,718	2,718	180	2,718	180	0	0	0	0	0	0
05053	Dateland Ranch	16,325	16,325	900	16,325	900	0	0	0	0	0	0
	Total	1,188,347	1,188,347	23,907	1,188,347	23,907	616,400	21,263	0	0	616,400	21,263

1. Represent current active grazing allotments, totaling 428,170 acres. The remaining allotments have been inactive for at least the last five years and some have not been grazed in 30 years.

Table 4-19
Economic Analysis of Livestock Grazing on 428,170 Acres
Averaging 1,958 Head Annually

	Direct	Indirect	Induced	Total
Dollar Value	$190,243	$134,133	$34,588	$358,964
Employment	1.46	1.56	0.43	3.45
Labor Income	$11,197	$40,578	$12,250	$64,025
Property Income	$4,431	$18,224	$6,867	$29,522
Tax Revenue	$5,430	$4,952	$2,323	$12,705
Value Added	$21,058	$63,754	$21,440	$106,252

Table 4-20
Economic Analysis of Livestock Grazing per 10,000 Acres of Grazing

	Direct	Indirect	Induced	Total
Dollar Value	$4,443	$3,133	$808	$8,384
Employment	.03	.04	.01	.08
Labor Income	$262	$948	$286	$1,496
Property Income	$103	$426	$160	$689
Tax Revenue	$127	$116	$540	$783
Value Added	$492	$1,490	$986	$2,968

Table 4-21
Grazing Fees Collected from 2001 to 2005 for Planning Area

Year	Amount
2001	$27,340
2002	$27,340
2003	$27,133
2004	$28,960
2005	$36,251

C. DIFFERENCES BETWEEN ALTERNATIVES

1. Alternatives A and B

Under Alternatives A and B, no changes to current allotments would occur (see Table 4-18). The current number of acres (1.3 million) of BLM-administered lands would continue to be available for livestock grazing. Grazing fees would continue to be collected but may vary depending on forage availability and the costs of livestock production.

No changes to social conditions would be expected to occur. Revenue, employment/ unemployment, personal income, and county tax base levels would remain relatively the same with regard to livestock grazing on BLM-administered lands.

2. Alternative C and the Proposed Plan

Under Alternative C and the Proposed Plan, allotments would be reduced from 16 to five. The five allotments are those that currently have active livestock grazing (the 11 allotments unavailable for grazing use under these alternatives do not currently have active livestock grazing). Those ranchers who currently graze livestock on allotments would be allowed to continue that activity.

Allotments that have not had livestock grazing activity in the last five years (most have not had grazing in the last 30 years) would become unavailable for grazing use. Therefore, social impacts to ranchers on allotments no longer available for livestock grazing use under Alternative C and the Proposed Plan would likely be minimal. Their interaction with the landscape, perceptions of quality of life, and attitudes and beliefs regarding the local environment, its uses, and sense of place would also likely be minimal as no significant change in their lifestyle would occur.

AUMs permitted under Alternative C and the Proposed Plan would be reduced from 23,907 to 21,263. This represents an 11 percent reduction. The number of acres available for grazing would be reduced by 48 percent, from 1.2 million acres to 616,400 acres. The allotments/acres proposed to be made unavailable for livestock grazing in Alternative C and the Proposed Plan have not been grazed for as many as 30 years. The 428,170 acres currently grazed would not be affected. No significant changes in grazing fee revenues would be anticipated. Therefore, under these alternatives, there would likely be no noticeable economic changes. Revenue, employment/unemployment, personal income, and county tax base levels would remain relatively the same with regard to livestock grazing on BLM-administered lands.

3. Alternative D

Under Alternative D, no allotments would be available for livestock grazing in the planning area, a 100 percent reduction. Ranchers who currently obtain grazing allotments would be impacted because all BLM-administered lands would be unavailable for livestock grazing use.

Adverse social impacts to ranchers on the 16 allotments no longer available for livestock grazing under Alternative D would be significant. This alternative would remove the opportunity to continue the ranching livelihood, particularly within the five allotments that currently have active grazing. Their interaction with the landscape, perceptions of quality of life, and attitudes and beliefs regarding the local environment, its uses, and sense of place would also likely be impacted as a significant change in their lifestyle would occur. Adverse social impacts may be significant at an individual rancher level but would likely not be significant at the county level as the ranching industry comprises a relatively small contribution to the overall economy.

Under Alternative D, adverse economic impacts would also likely occur. Revenues would no longer be generated by livestock grazing on BLM-administered lands (see Table 4-19). Revenues from grazing fees would be eliminated, a loss of an average $29,405 dollars per year.

Personnel working in jobs related to the YFO livestock allotments would no longer be needed, resulting in loss of employment and personal income. The economic impacts would constitute a loss of $358,964 in total output and 3.44 jobs (including direct, indirect, and induced) within the planning area per year. These impacts would be 0.8 percent of total output and 1.5 percent of jobs for cattle ranching and farming (using 2003 data, Table 3-35) each year.

Adverse economic impacts would occur primarily within small ranching communities. Adverse economic impacts would be minimal overall at the county level as ranching is a relatively small industry and would have an insignificant impact on county revenue, employment, personal income, and tax bases.

D. UNAVOIDABLE ADVERSE IMPACTS

Unavailable allotments would result in unavoidable loss of income and employment to the livestock grazing industry in the planning area.

4.13.2 SOCIAL AND ECONOMIC IMPACTS OF MINERAL RESOURCE MANAGEMENT

A. SOCIAL IMPACTS FROM MINERAL RESOURCE MANAGEMENT

Mineral resources within the planning area support community needs both inside and outside of the planning area. As populations increase in and around the planning area, the demand for mineral resources would also increase.

Despite these potential increases in demand, no impact to or change in community lifestyle is anticipated. Potential adverse impacts may occur to the way people interact with the landscape. If mineral resource demand increases, recreationists may have an adverse reaction to the disturbed landscapes created by mining and mineral extraction activities. The perception of the mining community and their interaction with the landscape may also be adversely impacted by land use allocations or designations that withdraw lands from mineral entry.

Community perceptions regarding quality of life may be adversely impacted by population and mineral resource demand increases. The perception may be that the quality of life would decrease or decline as the population increases if BLM does not continue to provide mineral resources. The public perception may be that there would always be materials available from public lands to meet their demand.

Conflicting demands for resource uses would likely also increase. Demand for open space to improve quality of life would likely conflict with the demand for mineral resources. The number of proposed community pits varies by alternative. Community pits could help consolidate salable mineral extraction to a smaller number of locations thus consolidating impacts to other resources.

Both beneficial and adverse social impacts from mineral resource management would likely occur. Beneficial impacts would occur from the continued and expanded availability of locatable,

leasable, and salable mineral resources to the community. Potential beneficial impacts would occur from mineral entry withdrawals to recreationists seeking undisturbed landscapes.

Adverse impacts may occur from increased demand as communities in the planning area grow, limiting mineral resources available to the public. Mineral entry withdrawals could also have an adverse impact on certain members of the public, specifically those interested in mining claims or mineral extraction activities.

B. ECONOMIC IMPACTS FROM MINERAL RESOURCE MANAGEMENT

The mining industry is a relatively small part of the planning area's total economy, with an estimated 202 jobs and $15.77 million in income (value added) for Yuma and La Paz counties in 2003. Overall, the mining industry has declined in the planning area since the 1970s.

The planning area contains sources of various minerals that could continue to be developed and utilized now and in the future. The demand for salable minerals (e.g., sand and gravel) would be expected to increase due to increasing development within the planning area.

Casual use mining for locatable minerals (e.g. gold, silver, copper) is very active in the planning area. There are currently approximately 20 active mining notices (also for locatable minerals) in the planning area. Mining activity could be expected to increase if commodity prices make mining more economical.

Mineral resource management on BLM-administered lands within the planning area includes permits for sand/gravel mining. Currently, approximately 454,485 cubic yards per year are taken by private leaseholders while approximately 296,067 cubic yards per year are taken by public agencies at no charge. In addition, YFO has proposed contracts with Yuma County for 160,000 cubic yards per year at no charge. Based on prices from Valley Sand and Gravel, the market value of a cubic yard of sand/gravel is $18. Private leaseholders pay $0.83 per cubic yard. At 454,485 cubic yards x $0.83 per cubic yard = $377,223 annually.

Based on this information, a total of approximately 750,552 cubic yards/year of sand/gravel are mined from BLM-administered lands in the planning area (454,485 by private leaseholders + 296,067 by public agencies). The current market value of this extraction is 750,552 cubic yards x $18 per cubic yard = $13,509,936 annually (direct dollar value) (Table 4-22). The direct employment impact of sand and gravel mined on BLM-administered lands is 129 jobs and the total (direct, indirect and induced) is 186.3 jobs (Table 4-22).

The information presented in Table 4-23 may be used to determine the economic impact of the pending 160,000-cubic-yard-per-year agreement between YFO and Yuma County. For example, 160,000 cubic yards of material extraction per year divided by 1,000 cubic yards yields a factor of 160.The direct employment value is 0.17 jobs or 0.24 total jobs (including direct, indirect, and induced) (Table 4-23). Thus, the total employment impact of the agreement, for example, would be 160 x 0.24 (from Table 4-23), equaling 38 jobs created. Similar calculations may be made for other variables. Economic contributions of sand and gravel mining within BLM-administered

lands are relatively small as compared to the overall economy and employment of Yuma and La Paz counties.

Table 4-22
Economic Analysis of Mineral Material (Sand and Gravel) Extractions on BLM-administered Lands in Planning Area

	Direct	Indirect	Induced	Total
Dollar Value	$13,509,936	$1,138,028	$3,792,596	$18,440,560
Employment	129.00	10.60	46.70	186.30
Labor Income	$5,288,100	$388,991	$1,343,242	$7,020,333
Property Income	$4,072,686	$189,593	$752,991	$5,015,270
Tax Revenue	$403,529	$48,867	$254,693	$707,089
Value Added	$9,764,315	$627,451	$2,350,926	$12,742,692

Table 4-23
Economic Analysis of Mineral Material (Sand and Gravel) Extractions Per 1,000 Cubic Yards

	Direct	Indirect	Induced	Total
Dollar Value	$18,000	$1,516	$5,053	$24,569
Employment	.17	.01	.06	.24
Labor Income	$7,046	$518	$1,790	$9,354
Property Income	$5,426	$253	$1,003	$6,682
Tax Revenue	$538	$65	$339	$942
Value Added	$13,010	$836	$3,132	$16,978

C. IMPACTS TO MINERAL RESOURCES FROM LANDS AND REALTY MANAGEMENT

There would be potential for social and economic impacts to Mineral Resources from Lands and Realty Management actions - specifically withdrawals. Land withdrawals would reduce the opportunity for mineral discovery and extraction.

There are new withdrawals proposed in the range of alternatives that have a potential to affect mineral development. There are also existing withdrawals in Wilderness and ACECs that would be maintained under all alternatives.

If Reclamation relinquishes their second form withdrawal in the Big Marias ACEC, YFO would propose to withdraw 2,900 acres of the ACEC from mineral entry under Alternatives A, D and the Proposed Plan. In addition, the Big Marias ACEC contains 1,600 acres of the Big Maria Mountains Wilderness, which is currently withdrawn from mineral entry. This area has low potential for leasable minerals, low potential for metallic locatable minerals, moderate potential for non-metallic locatable minerals, and moderate potential for salable minerals.

Under Alternatives C, D, and the Proposed Plan, 600 acres would be withdrawn from mineral entry for the Dripping Springs ACEC. This area has low potential for leasable minerals, high potential for metallic locatable minerals, moderate potential for non-metallic locatable minerals, and moderate to high potential for salable minerals. Also, under Alternatives C and D, 4,800 acres would be withdrawn from mineral entry in the expanded Sears Point ACEC. Under the Proposed Plan, the Sears Point withdrawal would be expanded to 8,500 acres.

In addition, under all alternatives, all non-Federal lands acquired within the Gila River Cultural ACEC boundary established and withdrawn by Public Land Order 7212 would be managed under the current existing withdrawal. This area has low potential for leasable minerals, low potential for metallic locatable minerals, low to moderate potential for non-metallic locatable minerals, and low to moderate potential for salable minerals.

D. DIFFERENCES BETWEEN ALTERNATIVES

1. Alternatives A and D

Under Alternatives A and D, one community pit would continue to be proposed for public use. This pit (Ehrenberg South Pit) would consist of 100 acres with 1,000,000 cubic yards of material potentially available. No additional pits would be proposed under these alternatives.

Adverse social impacts may occur from increased demand of mineral resources as the planning area communities grow. Alternative A and D may not meet public demand for mineral resources.

Revenue, employment/unemployment, personal income, and county tax base levels would remain relatively the same with regard to mineral resource management on BLM-administered lands as no significant changes in mineral resource availability would occur.

2. Alternative B

Under Alternative B, a total of six community pits would be made available for public use (including the one community pit in Alternatives A and D). These pits would consist of 800 acres with 1,000,000 cubic yards of material available in each pit, for a total of 6,000,000 cubic yards. Alternative B would result in a six fold increase in available salable materials compared to Alternatives A and D.

Beneficial social impacts would occur from the continued and expanded availability of mineral resources (an increase in community pits) to the community.

The public's (primarily those that are interested in obtaining sand and gravel materials) interaction with the landscape would likely increase with the increase in community pits. This public may also have a more positive perception of quality of life, and attitudes and beliefs regarding the local environment, its uses, and sense of place due to the increase in resource availability.

Under Alternative B, adverse social impacts may occur from increased extraction of sand and gravel materials in the planning area. Recreationists that enjoy remote and primitive settings may be adversely impacted. Increased extraction from more community pits may also result in

increased vehicle use of roadways, possibly resulting in adverse impacts to recreational visitors in the area. Proposed mineral entry withdrawals could also have an adverse impact on the public, specifically those interested in mining claims or mineral extraction activities.

Under Alternative B, beneficial economic impacts would occur regarding revenue, employment, personal income, and county tax bases. The information presented in Table 4-23 may be used to determine the economic impact of the additional 5,000,000 cubic yards of material available for public use. By dividing 5,000,000 cubic yards by 1,000 yields a factor of 5,000. Thus, the employment impact to the mining industry in the planning area would likely be 5,000 x .17 equaling 850 jobs created. Using data from Table 3-35 (202 jobs in the mining industry in 2003), this would result in a 4-fold increase in mining industry related jobs since 2003. The value added to the economy of Yuma and La Paz counties could be calculated by 5,000 x $21,484 equaling a $107,420,000 increase.

3. Alternative C

Under Alternative C, a total of three community pits would be made available for public use (including the one community pit in Alternatives A and D). These pits would consist of 400 acres with 1,000,000 cubic yards of material available in each pit, for a total of 3,000,000 cubic yards. Alternative C would result in a 3 fold increase in available salable material compared to Alternatives A and D, but half of the available salable material compared to Alternative B.

Beneficial and adverse social impacts would be similar to those mentioned for Alternative B, but at a lesser scale. Under Alternative C, half the number of community pits would be made available (three under Alternative C and six under Alternative B and the Proposed Plan).

This alternative would also result in beneficial economic impacts to revenue, employment, personal income, and county tax bases. The employment impact of the additional 2,000,000 cubic yards of material available for public use would be 2,000 x .17 equaling 340 jobs created. Using data from Table 3-35 (202 jobs in the sand and gravel industry in 2003), this would result in a 68 percent increase in mining industry related jobs since 2003. The value added to the economy of Yuma and La Paz counties could be calculated by 2,000 x $21,484 equaling a $42,968,000 increase.

4. Proposed Plan

Under the Proposed Plan, a total of five community pits would be made available for public use (including the one community pit in Alternatives A and D). These pits would consist of 700 acres with 1,000,000 cubic yards of material available in each pit, for a total of 5,000,000 cubic yards. The Proposed Plan would result in a 5 fold increase in available salable material compared to Alternatives A and D, but about 3/4 of the available salable material compared to Alternative B.

Beneficial and adverse social impacts would be similar to those mentioned for Alternative B, but at a slightly lower scale. This alternative would also result in beneficial economic impacts to revenue, employment, personal income, and county tax bases. The employment impact of the additional 4,000,000 cubic yards of material available for public use would be 4,000 x .17 equaling 680 jobs created. Using data from Table 3-35 (202 jobs in the sand and gravel industry

in 2003), this would result in a 3 fold increase in mining industry related jobs since 2003. The value added to the economy of Yuma and La Paz counties could be calculated by 4,000 x $21,484 equaling a $85,936,000 increase.

E. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Once a mineral resource is extracted it cannot be recovered in the planning area.

Non-reactive gravel is a unique resource in the planning area that would be lost once depleted and would not be replaceable (unique deposit type). This resource (non-reactive gravel) may be provided by BLM for the proposed Palo Verde Nuclear Plant Expansion.

4.13.3 SOCIAL AND ECONOMIC IMPACTS OF RECREATION MANAGEMENT

YFO manages two types of recreation fee programs, provides access to dispersed and undeveloped water and land-based recreation opportunities, and administers two recreation concession leases on the lower Colorado River within the planning area. YFO provides a wide range of recreation opportunities in an environmentally responsible manner consistent with maintaining public health and safety and BLM goals and objectives.

Recreational activities and services have become major industries in the planning area and have a significant impact on social and economic conditions. The local tourism industry is currently one of the major industries in the planning area and would likely continue to be important in the future. The industry is heavily supported by public lands and the recreational opportunities they provide. Changes to recreational opportunities within BLM-administered lands in the planning area could have impacts, both beneficial and adverse, to social and economic conditions.

A. SOCIAL IMPACTS FROM RECREATION MANAGEMENT

Local and regional social trends include increases in population, influxes in population from winter visitors during half of the year, expanding urban interfaces, overall aging of the population, and increasing participation rates in outdoor recreation activities.

The demand for recreational opportunities on public lands in the planning area is expected to continue to increase, both as a result of the increasing population and the growing numbers of winter and summer visitors. Demand for access to the same or similar land and water resources between various generally incompatible activities (e.g., hiking and OHV use) and the number of participants in these activities would be expected to remain stable or increase.

Increasing demand for recreation opportunities creates pressure for BLM to provide additional recreation resources. Such resources include areas for hiking, biking, equestrian use, camping, picnicking, day-use and long-term stays (as in the LTVAs). Demands also increase for facilities (such as bathrooms), and interpretative and visitor service programs. Any land use decision or

activity made would have impacts on recreation and therefore social conditions in the planning area. Additional planning, management, staffing, and funding would be required to achieve the goals for recreation management in the planning area.

Hiking, biking, equestrian use, camping, hunting, picnicking, and wilderness travel provide a tremendous social benefit to the public land visitor. Hiking and biking trails provide the public with recreational opportunities that improve their physical fitness and promote healthy lifestyles. Public land visitors who regularly take advantage of these non-motorized trail opportunities are generally healthier than those who do not. Groups of public land visitors often use equestrian and OHV trails as a part of formal and informal club activities. These opportunities provide visitors with a sense of community and belonging with those who enjoy experiencing the public lands in the same manner.

Designating specific areas for camping and day-use activities generally concentrates visitor use. This concentration of visitor use, along with the installation of recreation facilities and signs, promotes a sense of community and improved environmental stewardship of the public lands. A distinct sense of community is enjoyed by visitors at two LTVAs, as most of the campground users are retired and enjoy extended desert camping experiences.

The administration of two recreation concession leases provides the public with a wider range of more modern recreation amenities than the YFO is able to provide unassisted (e.g. electricity, fuel, food, laundry facilities, etc.). This enables a wider range of people to enjoy public lands, as not everyone is willing or able to camp primitively.

Potential beneficial social impacts would occur with an increase in recreational opportunities and in a more diverse recreation spectrum. The allocation of SRMAs would provide the public with YFO's proposed approach to recreation management over the life of this RMP. Social impacts from recreation management allocations are based on the following assumptions: (1) recreational sites and opportunities within Destination SRMAs would be primarily marketed and managed as regional or national public land destinations, (2) recreational sites and opportunities within Community SRMAs would be primarily marketed and managed for use by local community residents, (3) recreational opportunities within Undeveloped SRMAs would be managed to maintain a wide variety of unconfined activities across wide expanses of public land, (4) management within RMZs would focus on providing for identified recreational activities and achieving stated desired future conditions, (5) management within ERMAs would be limited to those actions needed to protect resource values and public health and safety. Under the Proposed Plan, the following benefits would occur through these types of allocations:

1) Greater Yuma Community SRMA. As a Community SRMA, these public lands would be managed primarily for the use of local community residents. This SRMA would be primarily focused on creating an interconnected system of recreational trails which would link local residents with their public lands and other communities. The promotion of non-motorized recreational trails within this SRMA would promote healthier lifestyles within the community. The vital connection of a future trail system within this SRMA would be the establishment of a recreational Anza Trail. This interpretive-based recreational trail would not only promote healthier lifestyles, but encourage greater understanding and appreciation of the community's natural and cultural history.

2) Gila River Valley Undeveloped SRMA. As an Undeveloped SRMA, these public lands would be managed to retain their undeveloped nature. The SRMA would be focused on establishing a less developed Anza Trail which would provide recreational trail connectivity between the City of Yuma and the adjacent BLM Lower Sonoran Field Office. The proposed Sears Point ACEC would also be within this SRMA, and the sensitive cultural and natural resources within this proposed ACEC would be cause to minimize the amount of human manipulation in the area to protect resources. These areas are generally not experiencing the same dramatic rates of encroachment from development in surrounding communities as other portions of the planning area; an undeveloped approach to recreation management would be one way to preserve visual and cultural landscapes in perpetuity for the public to enjoy.

3) Yuma East Undeveloped SRMA. As an Undeveloped SRMA, these public lands would be managed to retain their undeveloped nature. This area is a highly valued hunting resource, and any impacts to wildlife or their habitat would directly impact the hunter's visitor experiences. An undeveloped approach to recreation management within this proposed SRMA would be one way to ensure that children can continue to have the same hunting opportunities and experiences as their parents.

4) La Posa Destination SRMA. As a Destination SRMA, these public lands would be managed as a national destination. Every winter, thousands of winter visitors from all over the U.S. and Canada come to the Town of Quartzsite, Arizona to enjoy the mild climate, sense of community, and recreational opportunities on the public lands. The destination-based recreation management approach would manage the visitor use through effective interpretation and working partnerships.

5) Ehrenberg-Cibola Destination SRMA. As a Destination SRMA, these public lands would be managed as a regional destination. During the summer months, visitors flock to the Colorado River from metropolitan centers in Arizona and southern California. The destination-based recreation management approach would manage visitor use through effective interpretation and working partnerships.

Potential adverse social impacts may occur as a result of increased visitor use of recreational areas and concessions. Areas sustaining higher and more intensive use may require more restrictive management.

B. ECONOMIC IMPACTS FROM RECREATION MANAGEMENT

Recreation associated with winter visitors provides a large economic impact to the planning area. In order to determine visitor impacts, multiple studies were consulted:

- *Fourteenth Bi-Annual Yuma Winter Visitor Study* (Norton 2005);
- *Winter Resident Survey, Quartzsite* (Arizona State University 2002 and 2003);
- *Arizona Business*, Volume 50, Number 6, (Hogan 2003); and
- *YFO Recreation and Visitor Services Business Plan* (USDOI BLM 2007a).

- *Winter Resident Survey, Quartzsite* (Arizona State University 2002 and 2003);
- *Arizona Business*, Volume 50, Number 6, (Hogan 2003); and
- *YFO Recreation and Visitor Services Business Plan* (USDOI BLM 2007a).

Based on YFO data, 75 percent of site visits for 2004 were by individuals living more than 2 hours away. While the planning area has summer visitors, expenditure, length of stay, and group size data were not available. Consequently, Table 4-24 refers only to compiled winter visitor data.

For Yuma County, the Norton Study estimated 56,000 winter visitors for 2004-2005. Total expenditures were estimated at $131,235,000. Median expenditures per visitor per month were roughly $1,000. For La Paz County, Arizona Business provided an estimate of 2,720 winter visitors in mobile homes and RV parks. With two people to a household and mobile home/RVs representing 50 percent of the winter visitors, 10,880 winter visitors are estimated for La Paz County.

Based on the two Quartzsite surveys, 5,440 households (i.e. 2,720 mobile homes/RV park plus 2,720 other accommodations) spent an average of three weeks in La Paz County and spent an average of $125 per week, the total La Paz expenditure would be 5,440 x three weeks x $125 per week or $2,040,000.

Using estimated expenditures for Yuma County ($131,235,000) and those for La Paz County ($2,040,000), estimated expenditures for winter visitors in the planning area from 2004 to 2005 were $133,275,000, for 61,440 winter visitors (56,000 in Yuma County and 5,440 in La Paz County). Using the IMPLAN model for the planning area, the economic analysis of recreation management from winter visitor use for 2004 to 2005 is presented in Table 4-24.

Using the analysis data in Table 4-25, the dollar value per 1,000 winter visitor is $2,169,189 ($133,275,000 direct dollar value divided by 61,440 winter visitors multiplied by 1,000). Based on Table 4-25, the total employment value (direct, indirect, and induced) is 46.5 jobs. Using this information, the economic impact of an increase or decrease in winter visitors can be calculated. For example, an increase in recreation and visitor services on BLM-administered lands that leads to a 6,000 winter visitor increase would have a total (direct, indirect, and induced) economic impact of $19,901,628 (3,316,938 total dollar value multiplied by six) and a total employment impact of 279 jobs (46.5 total employment multiplied by six).

Table 4-24
Economic Analysis of Winter Visitors
La Paz and Yuma Counties

	Direct	Indirect	Induced	Total
Dollar Value	$133,275,000	$28,679,425	$41,838,230	$203,792,655
Employment	2,091	310	460	2,861
Labor Income	$34,774,588	$7,783,355	$10,011,623	$52,569,566
Property Income	$10,613,066	$3,701,978	$5,599,089	$19,914,133
Tax Revenue	$5,637,018	$1,041,914	$2,092,184	$8,771,116
Value Added	$51,024,672	$12,527,247	$17,702,896	$81,254,815

Table 4-25
Economic Analysis of 1,000 Winter Visitors
La Paz and Yuma Counties

	Direct	Indirect	Induced	Total
Dollar Value	$2,169,189	$466,788	$680,961	$3,316,938
Employment	34.0	5.0	7.5	46.5
Labor Income	$565,993	$126,682	$162,950	$855,625
Property Income	$172,738	$60,254	$91,131	$324,123
Tax Revenue	$91,748	$16,958	$34,052	$142,758
Value Added	$830,479	$203,894	$288,133	$1,322,506

1. Recreation Fee Programs

a. SRPs

SRPs are authorizations which allow specific recreational uses of public lands and related waters. They are issued to manage visitor use, protect natural and cultural resources, and provide a mechanism to accommodate commercial recreational uses. Fees collected for SRPs issued by YFO for uses in the planning area totaled $407,400 in Fiscal Year 2004 and $469,296 in Fiscal Year 2005. SRPs would remain an important part of the YFO recreation program. SRPs for commercial, organized, or competitive uses would continue to be issued in accordance with FLPMA, NEPA, and BLM policy and fees would be charged.

b. Amenity Recreation Fees

Amenity Recreation Fees are daily or annual passes, for which fees are charged, that allow the public to access and use BLM recreation facilities. Amenity Recreation Fees in the planning area totaled $219,399 for Fiscal Year 2004 and $223,750 in Fiscal Year 2005 (these amounts included concession leases). These amenities fees were charged for the use of recreational areas that maintain specified levels of development and facilities, such as designated campgrounds, picnic areas, boat launches, and bathroom facilities.

Concessions in the planning area provide recreation opportunities for a diversity of recreationists and serve as a commercial operation on public land that generates income. Concession activities would continue according to the terms and specifications of the various leases. Some leases would be renewed and additional new leases may be issued as necessary to support recreation programs in the planning area. In Fiscal year 2005, the Hidden Shores RV Village had 34,050 visitors and Walters Camp had approximately 4,482 visitors. In Fiscal Years 2004 and 2005, $111,393 and $114,124, respectively, were collected in fees for these two concessions, these amounts are incorporated into Recreation Amenity Fees (above).

C. DIFFERENCES BETWEEN ALTERNATIVES

1. Alternative A

Under Alternative A, recreation management would continue to comprise of recreation fee programs, recreation concession leases, and free recreational opportunities. SRMAs would not be

allocated under this alternative (Table 4-26). New recreation concession leases would be issued within the planning area under this alternative on a case-by-case basis. LTVAs would remain the same.

Table 4-26
SRMA and ERMA Allocations by Alternative (Acres)

Category	Alternatives				
	A	B	C	D	E
Destination SRMA	0	697,100	494,300	250,500	455,700
Community SRMA	0	587,300	64,900	35,600	123,200
Undeveloped SRMA	0	0	559,300	642,700	571,600
ERMA	0	33,500	199,500	389,200	167,500

No significant changes to social conditions would be expected to occur under Alternative A. However, increases in population would likely continue and result in an increasing demand for recreational opportunities. YFO would continue to experience more pressure to provide greater recreational resources, including facilities and visitor programs. Adverse impacts to the public's lifestyle, interactions with the landscape, sense of place, and attitudes may occur if demands on public lands could not be meet under Alternative A.

Revenue, employment/unemployment, personal income, and county tax base levels would remain relatively the same with regard to recreation management on BLM-administered lands.

2. Alternative B

Under Alternative B, recreation management would have a greater emphasis on developed and motorized recreation opportunities and less on remote settings and primitive recreation. Proposed SRMAs under the destination allocation would be emphasized in Alternative B with the most number of acres (697,100). The greatest number of acres (587,300) proposed for Community SRMAs are also in Alternative B. No Undeveloped SRMA acres are proposed. Alternative B also proposes 33,500 acres of ERMAs. New recreation concession leases would be issued within the planning area under this alternative on a case-by-case basis. No changes to LTVAs would occur under this alternative.

Social conditions would likely be impacted under this alternative. Alternative B places an emphasis on appropriate human use and influences along with the widest array of uses on BLM-administered lands. Less emphasis would be placed on remote settings and primitive recreation and more opportunities would be available for visitors interested in developed and motorized recreation. The highest number of Destination and Community SRMAs are proposed under this alternative. In addition, no Undeveloped SRMAs and the lowest number of ERMA acres are proposed under Alternative B.

Beneficial social impacts would occur from SRMA allocations under Alternative B. Beneficial impacts would occur to public land visitors interested in developed and motorized recreational opportunities. The allocation of the Greater Yuma Destination SRMA and its associated Red Cloud Road, Laguna Mountains, Gila Mountains, and Sears Point Heritage RMZs would

promote recreational opportunities to a wider variety of public land users. The allocation of the Yuma East Community SRMA, and its associated Clanton Hills Road and Red Raven Road RMZs, would promote recreational use of this area to surrounding local communities. The promotion of these recreational opportunities would increase human interactions with the landscape and provide beneficial impacts to visitors' perceptions of their quality of life. Positive attitudes and beliefs regarding the local environment, its uses, and sense of place for new users would likely increase with additional developed recreational facilities.

Negative social impacts would also occur from SRMA allocations under Alternative B. Public land visitors seeking remote settings and more undeveloped forms of recreation may experience adverse impacts due to the marketing strategies of the Greater Yuma Destination SRMA and the Yuma East Community SRMA. These recreationists may experience increasing conflicts with an increasing number of visitors participating in developed and motorized forms of recreation. These conflicts would adversely impact the traditional public land visitors' sense of place and attitudes towards public land management. These impacts would be most pronounced within the Red Cloud Road, Laguna Mountains, Gila Mountains, Clanton Hills Road, and Red Raven Road RMZs, where recreational opportunities are generally not marketed by the BLM as regional or local destinations.

Alternative B would likely result in beneficial economic impacts to revenue, employment, personal income, and county tax bases. The emphasis on developed and motorized recreational opportunities would likely result in an increase in visitors to BLM-administered lands in the planning area, particularly developed facilities. Beneficial economic impacts would be difficult to calculate until programs and developments have been established. Overall, beneficial economic impacts that result from this alternative would not likely be minimal to the economy and employment of La Paz and Yuma counties.

3. Alternative C

Under Alternative C, resources would be managed with decisions that have a balanced array of multiple uses, providing for both motorized and non-motorized recreation opportunities. Under this alternative, 494,300 Destination, 64,900 Community, and 559,300 Undeveloped SRMA acres are proposed (see Table 4-26). This alternative also proposes 199,500 acres of ERMAs. No new recreation leases would be issued under Alternative C. LTVAs would remain the same under this alternative.

Recreation allocations proposed under Alternative C would provide a more balanced range of recreation marketing strategies than Alternative B. This would ensure that recreational opportunities are appropriately marketed for those seeking to participate in both developed and undeveloped activities on the public lands.

Because major investments in recreation facilities are generally excluded within Undeveloped SRMAs, the allocation of the Yuma East Undeveloped SRMA would promote the continuation of dispersed and undeveloped forms of recreation that have traditionally occurred there. Alternative C does not propose to allocate any RMZs associated with Back Country Byway proposals within the Yuma East Undeveloped SRMA. These proposals would prevent negative impacts to traditional public land users' sense of place by maintaining visitor freedom to choose where to go and what to do.

Alternative C proposes to allocate the Gila Mountains and Laguna Mountains RMZ within the Greater Yuma Community SRMA. The inclusion of these two RMZs in a Community SRMA would focus marketing and environmental education efforts to the surrounding local communities where a majority of the existing visitors are coming from and provide the BLM with the ability to adequately manage the increasing amounts of motorized and non-motorized trail use through the installation of trailhead facilities.

Actively managing the existing recreational activities of these areas explicitly for local community users would result in beneficial impacts to local visitors' perceptions of quality of life, sense of place, and attitudes and beliefs regarding the local environment and its uses. The management of non-motorized trail based activities within these RMZs would also provide opportunities for local community residents to improve their physical fitness and make healthier lifestyle choices.

Some negative impacts to social conditions may occur from the recreation allocations proposed under Alternative C. Alternative C proposes to allocate the Southern Desert Communities RMZ within the Gila River Valley Undeveloped SRMA. Visitors to this RMZ primarily come from the rapidly expanding community of Wellton, Arizona. Major investments in recreation facilities are generally excluded within Undeveloped SRMAs. Due to the increasing amounts of motorized trail use within the RMZ, the inclusion of this RMZ in an Undeveloped SRMA may limit the BLM's ability to actively manage recreation through the use of facilities. A lack of active management in this area may cause the degradation of the RMZ's natural resources and the recreational opportunities dependent upon them, which would result in negative impacts to local visitors' perceptions of quality of life, sense of place, and attitudes and beliefs regarding the local environment and its uses.

Alternative C would likely result in beneficial economic impacts to revenue, employment, personal income, and county tax bases. The emphasis on a balance of multiple uses would likely result in an increase in visitors to BLM-administered lands in the planning area. Beneficial economic impacts would be difficult to calculate until programs and developments have been established. Overall, beneficial economic impacts that result from this alternative would likely be minimal to the economy and employment of La Paz and Yuma counties.

4. Alternative D

Under Alternative D, a greater emphasis would be placed on preservation of natural and cultural resources through limited public use. This alternative proposes greater opportunities for dispersed non-motorized recreation and fewer motorized and developed recreation opportunities. Under this alternative, 250,500 acres of Destination SRMAs are proposed and the lowest number of Community SRMA acres (35,600) is proposed. The highest number of acres (642,700) for Undeveloped SRMAs is found under Alternative D. The highest number of acres (398,200) for ERMAs is also found under Alternative D (see Table 4-26). LTVAs would remain unchanged under this alternative.

Under Alternative D, visitors seeking remote, primitive, and non-motorized recreation would experience beneficial impacts. Visitors interested in the preservation of natural and cultural resources would have an improved perception of the quality of life, and attitudes and beliefs regarding the local environment, its uses, and sense of place would likely be more positive.

Some negative impacts to social conditions may occur from the recreation allocations proposed under Alternative D. Alternative D proposes to allocate the Southern Desert Communities, Gila Mountains, and Laguna Mountains RMZs within the Gila River Valley Undeveloped SRMA. Visitors to these RMZs primarily come from the local communities surrounding Wellton, Arizona. Major investments in recreation facilities are generally excluded within Undeveloped SRMAs. Due to the increasing amounts of motorized and non-motorized trail uses within these RMZs, their inclusion in an Undeveloped SRMA may limit the BLM's ability to actively manage recreation through the use of trailhead facilities. A lack of active management in these areas may cause the degradation of the RMZs' natural resources and the recreational opportunities dependent upon them, which would result in negative impacts to local visitors' perceptions of quality of life, sense of place, and attitudes and beliefs regarding the local environment and its uses.

Revenue, employment/unemployment, personal income, and county tax base levels under Alternative D would remain similar to current conditions. LTVAs would remain the same, the number of visitors would not likely increase as the population and winter visitors increase. Overall, no significant increases or decreases would be expected to occur as a result of recreation management on BLM-administered lands under this alternative.

5. The Proposed Plan

The Proposed Plan seeks to provide an optimal balance between authorized resource uses, and the protection and long-term sustainability of sensitive resources within the planning area. Under this alternative, 455,700 acres (will change according to La Posa SRMA boundary change) of Destination SRMAs, 123,200 acres of Community SRMA, 571,600 acres of Undeveloped SRMAs, and 167,500 acres of ERMA (will change according to La Posa SRMA boundary change) are proposed. No changes to LTVAs would occur under this alternative. The social and economic impacts of implementing the recreation allocations proposed under the Proposed Plan would be similar to those described under Alternative C. One difference is that the Southern Desert Communities RMZ would be allocated within the Greater Yuma Community SRMA, providing the BLM with more flexibility to manage increasing amounts of trail use through the installation of trailhead facilities.

The Proposed Plan proposes to continue existing overnight camping restrictions for public lands surrounding the YFO's two LTVAs and proposes to institute new overnight camping restrictions within portions of ACECs. While these restrictions would reduce the acreage available for overnight camping, a majority of the 1.3 million acres of public land under the BLM's jurisdiction would continue to be available for this use.

The Proposed Plan proposes to continue prohibiting the use of firearms within the YFO's nine designated recreation fee sites. These restrictions reduce the acreage available for recreational shooting; however, a majority of the 1.3 million acres of public land under the BLM's jurisdiction would continue to be available for this use.

4.13.4 SOCIAL AND ECONOMIC IMPACTS OF TRAVEL MANAGEMENT

Travel management duties on BLM-administered lands in the planning area include designating OHV Management Areas (Open, Limited, and Closed Areas) and providing a wide variety of trail-based recreation opportunities, such as hiking, equestrian, mountain biking, and OHV trails. The planning area has experienced an increased demand for OHV and other motorized recreation opportunities. Travel routes provide safe and legal access for visitors to recreate on public lands.

A. SOCIAL IMPACTS OF TRAVEL MANAGEMENT

YFO is the largest supplier of land and trails available for OHV use in the planning area. Most of the planning area is available for at least some level of OHV use. Currently, about 169,000 acres are closed to OHV use, of the approximately 1.3 million acres managed by the YFO. OHV trails provide a tremendous social benefit to the public land visitor.

OHV regulations and changes in designations specific to certain areas would likely have little impact on visitors from outside the region. New visitors would continue to have a variety of OHV opportunities available, which would become their frame of reference for OHV activities during subsequent visits. Minimal impact to social conditions would likely occur from OHV management decisions or designations affecting new visitors.

Frequent users and local individuals and/or groups may react positively or negatively if certain favorite areas are not as open to satisfy their specific OHV use and history in the planning area. BLM's responsibility is to provide for multiple uses while protecting resources. Striking that balance may not satisfy every person's wants completely. Impacts to local users and/or groups may be significant individually but would not likely have an overall significant impact on the social condition of the planning area. A variety of areas offering different OHV experiences, from which visitors and local residents may choose, would continue to be available.

The designation of Closed OHV Management Areas would result in the loss of motorized recreational trail opportunities, which would directly impact visitors' use of the public lands. The overwhelming majority of Closed OHV Management Areas (167,800 acres) are a part of the congressionally-designated National Wilderness Preservation System. The Wilderness Act of 1964 mandates BLM to enforce the prohibition of motorized vehicles on these designated lands.

The designation of Open OHV Management Areas would provide the public with recreational opportunities where concentrated OHV use exists and the resource base can accommodate such use. The designation of such areas is part of the *National Management Strategy for Motorized OHV Use on Public Lands* (USDOI BLM 2001). By meeting the recreational demands of the OHV community, the YFO would provide these visitors with a sense of place on their public lands where they can enjoy cross-country OHV use in a sustainable fashion.

B. ECONOMIC IMPACTS OF TRAVEL MANAGEMENT

It is not anticipated that any of the alternatives would have a significant impact on local economies in the planning area. Numerous opportunities would continue to be available for OHV enthusiasts as well as public users that enjoy non-motorized recreation.

C. DIFFERENCES BETWEEN ALTERNATIVES

1. Alternative A

Alternative A represents the current management systems, policies, and practices. Under Alternative A, OHV Management Areas would continue to be designated as follows: 400 Open, 169,000 acres Closed, and 1,148,600 acres Limited (Table 4-27).

Table 4-27
OHV Management Area Allocations by Alternative (Acres)

OHV Management Areas	Alternative				
	A	B	C	D	E
Total Open	400	3,800	2,400	400	400
Total Closed	169,000	171,000	171,300	233,800	172,900
Total Limited	1,148,600	1,143,200	1,144,300	1,083,800	1,144,700
Total Acres	1,318,000	1,318,000	1,318,000	1,318,000	1,318,000

Beneficial social impacts may occur from the continued availability of Open and Limited OHV Management Areas. The public's interaction with the landscape would likely continue to increase as more recreationists use trails and routes as the population in the planning area grows. Closed OHV Management Areas would continue to benefit recreationists seeking non-motorized opportunities. Under Alternative A, motorized trail use would continue to be limited to existing routes (roads, trails, and drivable washes). This would ensure that there is no net loss of motorized recreational trails available for public use on lands administered by the YFO and no adverse impacts to traditional motorized uses.

Adverse social impacts would occur from increased recreational use of trails and routes under current policies and practices (Alternative A). These impacts include such things as:

- Proliferation of motorized routes and trails throughout the planning area,
- Unmanaged public access to sensitive resources,
- A lack of visitor services and education with the intent to create a better user ethic, and
- Confusion by the public as to what trails are open and available for use.

The public's perception of quality of life, and attitudes and beliefs regarding the local environment, its uses, and sense of place may be adversely affected by these impacts.

Revenue, employment/unemployment, personal income, and county tax base levels would remain relatively the same with regard to travel management on BLM-administered lands as no significant changes in current management would occur.

2. Alternative B

Alternative B would provide the widest array of public uses and motorized access. Under this alternative, OHV Management Areas would be designated as follows: 3,800 Open, 171,000 Closed, and 1,143,200 Limited (see Table 4-27). This alternative has the most acres of Open OHV Management Areas.

Under Alternative B, beneficial social impacts would likely occur, particularly to those public users interested in OHV recreation. The interaction of OHV recreationists with the landscape would increase with an increase in Open OHV Management Areas. Their perception of quality of life, and attitudes and beliefs regarding the local environment, its uses, and sense of place would also likely improve with additional OHV opportunities. Recreationists seeking non-motorized opportunities would benefit from the increase in Closed OHV Management Areas.

Management actions proposed under this alternative would reduce route proliferation problems, manage public access to sensitive resources, improve visitor services with the intent to create a better user ethic, and provide signs and information on trails that are open to visitor use. These management actions would result in beneficial social impacts to visitors by improving the recreational uses of the public lands, increasing environmental education, and providing additional visitor services.

Some adverse social impacts would occur from travel management decisions proposed under Alternatives B, C, D, and the Proposed Plan. Limiting motorized trail use to existing inventoried routes versus existing routes may disrupt traditional motorized use patterns on the public lands. This is due to the fact that routes missing from the YFO route inventory maps would no longer be available for motorized public use. This impact may be temporary in nature, as future YFO travel management plans would provide interested members of the public with additional opportunities to identify routes missing from the YFO route inventory. In addition, Alternatives B, C, D, and the Proposed Plan would prohibit motorized vehicles from pulling off 100 feet on either side of a route's centerline along the Anza Trail and within proposed ACECs and SCRMAs for resource protection purposes. While this prohibition within ACECs and SCRMAs still allows the reasonable use of a route's shoulder for overnight camping purposes, it may still potentially disrupt traditional camping uses within these areas as they are proposed under each alternative.

Revenue, employment/unemployment, personal income, and the county tax base levels would likely experience a slight increase due to potential increases in OHV recreationists. The potential increase would be minimal compared to the overall economy and employment in Yuma and La Paz counties.

3. Alternative C

Alternative C provides a more balanced approach and the expected environmental impacts are similar to those of the Proposed Plan. Under this alternative, OHV Management Areas would be

designated as follows: 2,400 Open, 171,300 Closed, and 1,144,300 Limited (see Table 4-27). This alternative is similar to Alternative B.

Social and economic impacts as a result of Alternative C would be similar to those discussed under Alternative B above.

4. Alternative D

Alternatives A and D propose the least amount of open areas, and fewer motorized and developed recreation opportunities. Under Alternative D, OHV Management Areas would be designated as follows: 400 Open, 233,800 Closed, and 1,083,800 Limited (see Table 4-27). This alternative would have the same number of acres designated as Open as Alternative A and the most acres designated as Closed.

Beneficial social impacts would likely be similar to those discussed under Alternative B. OHV users would likely not experience the same level of beneficial impacts due to the lower number of acres designated as Open OHV Management Areas. Management actions outlined in Alternative B would also occur under Alternative D, resulting in an improved experience overall. Adverse social impacts from implementing existing inventoried route limitations and 100-feet-pull-off limitations would be similar to those discussed under Alternative B above.

Revenue, employment/unemployment, personal income, and county tax base levels would remain relatively the same with regard to travel management on BLM-administered lands as no significant changes in current availability would occur.

5. The Proposed Plan

The Proposed Plan provides a balance between the needs of public access, the existing transportation network, and the protection of sensitive resources. Under this alternative, OHV Management Areas would be designated as follows: 400 Open, 172,900 Closed, and 1,144,700 Limited (see Table 4-27). Adverse social impacts from implementing existing inventoried route limitations and 100-feet-pull-off limitations would be similar to those discussed under Alternative B above.

Revenue, employment/unemployment, personal income, and county tax base levels would remain relatively the same with regard to travel management on BLM-administered lands as no significant changes in current availability would occur.

4.13.5 SOCIAL AND ECONOMIC IMPACTS OF LANDS AND REALTY MANAGEMENT

Resource capabilities and uses associated with lands and realty management include but are not limited to, land disposal and acquisition actions, withdrawals, agricultural leases, ROWs, and renewable energy authorizations, enhanced community expansion and the social environment. These are affected by local and regional social trends including continued and projected increases in population and retirement migration to the area, increases in participation rates in outdoor recreation activities, and increased demand for OHV and other motorized recreation opportunities. The large number of winter visitors to the area has also had a profound effect on

local communities and their social environment, and has increased demand for LTVA development.

A. SOCIAL IMPACTS OF LANDS AND REALTY MANAGEMENT

As communities expand and populations grow, there is an increased need for access across public lands for roads, utilities, and other infrastructure. The demand on public lands to meet community needs include but are not limited to, land disposals for residential and business purposes, and for R&PP leases/patents for public and recreational facilities.

The communities in the planning area may perceive that the quality of life would decrease/decline as the population increases if YFO does not provide realty services. Increased population may create conflicting demands of use (open space versus amenities and utilities). As the population becomes more affluent, it demands better and more recreational opportunities (e.g., Hidden Shores RV Village Concession area).

In communities surrounded by public lands, growth may be limited if lands are not made available for disposal to meet increased public demand for residential and business development. Disposal of public lands may cause impacts by the potential removal of lands historically used for recreation from the public domain.

Land acquisitions of private land from willing sellers can be used to enhance recreational opportunities for the public by acquiring strategically located properties and opening them to the general public to meet recreational needs (e.g., Gilmore's Camp). Acquisitions of private land benefits various Federal programs and results in long-term enhancement from BLM administration. Many acquired lands are at risk of development or overuse in areas with sensitive natural or cultural resources.

ROWs may enhance access to the public lands for recreational opportunities. In addition, ROWs may provide infrastructure for the needs of the recreating public (e.g., powerlines, water, and sewer lines). However, ROW authorizations may negatively impact the recreational opportunities by encumbering the lands and viewsheds.

Designated ROW Corridors and communications sites allow for the installation of additional facilities to provide services to the communities as they grow. This enhances the social environment by allowing additional infrastructure to meet public demand needs.

B. ECONOMIC IMPACTS OF LANDS AND REALTY MANAGEMENT

Economic impacts for lands and realty management focused on communications sites, ROW grants, leases, and permits. Income for agricultural, communications sites, and mineral, residential, and ROW leases in the last five years are presented in Table 4-28 below.

Table 4-28
Lands and Realty Income from 2001 to 2006

Type	2001	2002	2003	2004	2005	2006
Agricultural Leases/Permits	$435,373	$465,569	$438,670	$579,985	$487,652	$165,907*
Communications Use Authorizations	$83,533	$112,457	$93,792	$101,526	$127,168	$154,967
Mineral Leasing Act ROWs	$13,777	$7,874	$19,690	2004 and 2005 rent monies were included in regular rent income		$17,799
Residential Leases	$59,500	$59,608	$59,608	$60,908	$61,900	$54,500
ROW Rental Income	$52,632	$71,354	$70,290	$8,566	$105,096	$96,550

* Income reflects partial year; exchange completed in 2006 for California agricultural permits.

1. Agricultural Leases

YFO currently leases approximately 1,044 acres of land in Arizona and California for agricultural use (approximately 227 acres in California and Approximately 817 acres in Arizona).

Between 2005 and 2006, YFO disposed of approximately 2,087 acres of leased agricultural land in California. In addition, an 80-acre parcel of leased agricultural land in California is being considered by Congress for exchange legislation. Income for agricultural leases on the disposed 2,087 acres is no longer being generated. Any loss of agicultural lands would decrease agricultural lease income. Total fair market value of the 2,087 acres exchanged was over $6,000,000.

The last agricultural lease appraisal for the California agricultural leases was completed in 1998. Due to the processing of an exchange, the California agricultural leases were not appraised between 1998 and 2007. An appraisal was recently completed for the Arizona agricultural leases. An appraisal will be requested for the remaining California agricultural leases in 2007.

2. Communications Sites

Currently, YFO administers 11 communications sites encompassing 232 acres in the planning area. Sites range in size from one acre to 80 acres with multiple users on some sites. Federal, State, and local agencies within YFO provide public services and are exempt from rent. In Fiscal Year 2006, YFO received approximately $154,967 in revenue for these sites (Table 4-28).

Based on the Palo Verde Gap proposal, communications sites require roughly $10,000 per year per site for maintenance. The IMPLAN model was used to develop an economic analysis of the communications sites for annual maintenance (Table 4-29). The 11 existing sites require approximately $110,000 in maintenance costs on an annual basis (Table 4-30).

Table 4-29
Economic Analysis of Communications Sites;
Annual Maintenance

	Direct	Indirect	Induced	Total
Dollar Value	$110,000	$17,694	$50,324	$188,018
Employment	2.0	0.2	0 .6	2.8
Labor Income	$107,402	$18,189	$29,716	$155,307
Property Income	$53,312	$8,168	$16,658	$78,138
Tax Revenue	$12,905	$2,332	$5,634	$20,871
Value Added	$173,619	$28,689	$52,008	$254,316

The proposed Palo Verde Gap Communications Site would have economic impacts associated with development costs ($500,000), construction costs ($750,000), and maintenance costs ($10,000 annually). Using the IMPLAN model, the economic analysis of the first year is presented in Table 4-30.

Table 4-30
Economic Analysis of First Year of the Proposed Palo Verde Gap Communications Site

	Direct	Indirect	Induced	Total
Dollar Value	$1,260,000	$295,961	$371,065	$1,927,026
Employment	12.3	3.8	4.4	20.5
Labor Income	$438,353	$117,091	$131,422	$686,866
Property Income	$44,734	$39,009	$73,672	$157,415
Tax Revenue	$5,050	$15,204	$24,919	$45,173
Value Added	$488,137	$171,304	$230,013	$889,454

A second proposed communications site is called the Laguna Mountains High-Power Site. The site has development costs of $500,000, construction costs of $750,000 and annual maintenance costs of $10,000. Using the IMPLAN model, the economic analysis of the first year of the Laguna Mountains High-Power Communications Site is presented in Table 4-31.

Table 4-31
Economic Analysis of First Year of the
Proposed Laguna Mountains High-Power Communications Site

	Direct	Indirect	Induced	Total
Dollar Value	$1,462,500	$343,447	$430,813	$2,236,760
Employment	13.3	4.1	4.1	21.5
Labor Income	$509,001	$135,878	$152,583	$797,462
Property Income	$51,803	$45,219	$85,327	$182,349
Tax Revenue	$5,864	$17,644	$28,931	$52,439
Value Added	$566,668	$198,741	$266,841	$1,032,250

After site development, the potential economic impact of the Laguna Mountain Communications Site would be larger than the Palo Verde Gap Communications Site due to higher maintenance

expenditures. In rough terms, the potential direct, indirect, and induced economic impact of the Laguna Mountain Communications Site would be 25 percent greater than the Palo Verde Gap Communications Site on an annual basis. The change in communication abilities of the area has the potential to impact visitor services and the social experience of the recreational settings in terms of the communications abilities of YFO staff, law enforcement and emergency services, and the visitors themselves.

3. Rights-of-Way

YFO authorizes ROWs on BLM-administered public lands in the planning area. In Fiscal Year 2006, approximately $96,550 is expected in rental fees, with an average of $7.51 per acre on 12,856 acres (i.e. $96,550 ÷ $7.51) in ROWs. With an average ROW of 200 feet, this amounts to 530 miles of ROWs. In addition, YFO provides ROWs to other government agencies at no charge. Roughly 300 miles are provided within BLM-administered lands, yielding 7,272 acres based on the 200 foot average width. The foregone revenue would be $54,612 per year (i.e. 7,272 acres x $7.51).

4. Other Lands and Realty Authorizations

a. R&PP leases

R&PP leases would continue in force for their respective terms. Renewals and development of new leases would be acted upon according to the law and policy currently in effect. Some R&PP lands may change ownership in compliance with the R&PP Act.

b. Disposal and Acquisition

Changing needs and demands for goods and services produced using public lands would continue to evolve. At times, it may become desirable to dispose of certain lands that cannot be efficiently or effectively managed by BLM. Other governmental entities may also require additional space for expansion or development of public facilities such as parks, schools, waste disposal sites, water treatment plants, or other facilities. It may be desirable for YFO to acquire additional lands to better manage existing property or fulfill various other purposes. Acquisition and disposal of lands is a valuable management tool that continues to help the BLM accomplish its mission. All public lands would be retained containing any developed or maintained recreation facilities.

Acquiring lands in identified areas could benefit a number of recreation activities including access by connecting public land parcels. Where land disposals take place on the outskirts of communities, recreational use in these areas would be forced to relocate, potentially having greater impact for other resources.

YFO would continue to have the ability to sell or exchange public lands identified for disposal. Most lands identified for disposal are on the outskirts of the growing communities within the planning area. Disposing of these lands through sale would result in a direct net loss of recreational opportunities on the public lands, most of which are conveniently located nearby local residences. Disposing of these lands through exchange would not cause a net loss of recreational opportunities on the public lands, as other lands elsewhere would come under the jurisdiction of YFO which would provide the public with other recreational opportunities.

Disposing of public lands through both sale and exchange would most likely force existing recreational uses to relocate to other areas. The relocation of these recreational uses would then begin impacting the resources on other BLM-administered lands.

c. Use Authorizations

Use authorizations, including those in ROW and transportation corridors, are not anticipated to have impacts on social and economic conditions until potential projects are identified. Corridors may continue to be used for other activities. Allowing development of utility distribution systems would potentially have beneficial impacts on communities in the planning area by adding to the availability and dependability of utilities to the area. NEPA analysis of each proposed project would determine potential impacts to social and economic conditions.

C. DIFFERENCES BETWEEN ALTERNATIVES

1. Alternative A

Under Alternative A, leases, permits, and easements would continue to be authorized on a case-by-case basis. ROWs and renewable energy proposals would also continue to be considered on a case-by-case basis. Under this alternative, 19,100 acres would continue to be available for disposal (Table 4-2). Alternative A would continue the existing three ROW Corridors (200 miles) and continue designation of six communications sites (and five undesignated communications sites) (all low power sites).

No significant changes to social conditions would be expected to occur under Alternative A. Revenue, employment/unemployment, personal income, and county tax base levels would remain relatively the same with regard to lands and realty management on BLM-administered lands.

2. Alternative B

Under Alternative B, leases, permits, and easements would continue to be authorized on a case-by-case basis. ROWs and renewable energy proposals would also continue to be considered on a case-by-case basis. Under this alternative, 46,900 acres of public land would be available for disposal (Table 4-2). This alternative proposes the most acres for disposal.

Alternative B proposes an increase of ROW Corridors from three to 10, for a total of 500 miles. Designated communications sites would increase to 13, including 12 low power sites and one high power site (Table 4-2).

Under Alternative B, adverse impacts to social conditions may occur due to the increase in public land disposals (these lands may no longer be available for public use), and an increase in ROW Corridors and communications sites. The increase in ROW Corridors and communications sites may adversely impact the public's perception of the recreational experience, particularly those that enjoy solitude and primitive areas as these sites and corridors may create increased motorized use and diminish the scenic quality. Beneficial impacts to social conditions would also likely occur due to the increase in utility availability to the public and improved communication capabilities.

Economic impacts of Alternative B would be primarily beneficial to revenue, employment, personal income, and county tax bases. An increase in land use authorizations would result in an increase in BLM revenues as well as an increase in employment related to construction and maintenance of authorized facilities in the planning area (Tables 4-30 and 4-31).

3. Alternative C

Under Alternative C, leases, permits, and easements would continue to be authorized on a case-by-case basis. ROWs and renewable energy proposals would also continue to be considered on a case-by-case basis. Under this alternative, 10,500 acres of public land would be available for disposal (Table 4-2).

Alternative C proposes an increase of ROW Corridors from three to 10, for a total of 500 miles. Designated communications sites would be increased to 11, including 10 low power sites and one high power site (see Table 4-2).

Impacts to social and economic conditions under Alternative C would be similar to those discussed under the Alternative B with the exception of disposal, which Alternative B proposes considerably more acres available for disposal.

4. Alternative D

Under Alternative D, leases, permits, and easements would continue to be authorized on a case-by-case basis. ROWs and renewable energy proposals would also continue to be considered on a case-by-case basis. Under this alternative, 8,200 acres of public land would be available for disposal (Table 4-2).

Alternative D proposes an increase of ROW Corridors from three to five, for a total of 400 miles. Designated communications sites would be increased to eight (all low power sites) (Table 4-2).

No significant changes to social conditions would be expected to occur under Alternative D, this alternative would have similar impacts as those discussed under Alternative A. Revenue, employment/unemployment, personal income, and county tax base levels would remain relatively the same with regard to lands and realty management on BLM-administered lands.

5. The Proposed Plan

Under the Proposed Plan, leases, permits, and easements would continue to be authorized on a case-by-case basis. ROWs and renewable energy proposals would also continue to be considered on a case-by-case basis. Under this alternative, 11,900 acres of public land would be available for disposal (Table 4-2).

The Proposed Plan proposes an increase of ROW Corridors from three to eight, for a total of 465 miles. Designated communications sites would be increased to 10, including nine low power sites and 1 high power site (Table 4-2).

Impacts to social and economic conditions under the Proposed Plan would be similar to those discussed under Alternative C (above).

4.14 ENVIRONMENTAL JUSTICE

Environmental justice was addressed in EO 12898, issued in 1994. The goal was to preclude Federal actions from creating disproportionate impacts to minority and low-income populations. Economic data upon which to base possible environmental justice effects (i.e., the geographic distribution of minority and income populations and their changes over time) were presented in Chapter 3.

The economic data and discussion in Chapter 3 did not reveal evidence of environmental justice issues. That is, implementing any of the proposed alternatives would not result in disproportionate adverse plan-related effects on minority or low-income groups. No substantial changes to ethnic communities or low-income neighborhoods were detected. There is no indication that any of the alternatives would have substantial adverse economic effects on any particular ethnic or low-income group as compared to others.

BLM management actions and land use decisions are primarily driven by the resource base and the public involvement process. Unlike other entities involved in siting facilities or land uses within a community or region, BLM makes resource decisions relying most heavily on where the particular resources occur (e.g., mineral deposits, vegetative communities) and where visitor uses have occurred in the past (e.g., mining activities, OHV use, and camping areas).

4.15 CUMULATIVE IMPACTS

NEPA and the CEQ regulations require Federal agencies to consider the cumulative impacts of their actions. Cumulative impacts may be defined as the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes those actions. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time.

The future foreseeable actions would include the following:

- Population growth in and next to the planning area, which would increase residential and commercial development on private lands;
- Continued grazing;
- Potential minerals development;
- Increased recreational uses on BLM-administered lands;
- Increased border initiatives and safety related activities;
- Activities on lands under the jurisdiction of other Federal and State agencies; and
- Ongoing and future military withdrawals, operations, and land use authorizations within the planning area.

The alternatives could affect several resources and resource uses, including soils, air quality, water resources, and social and economic conditions. Urbanization, mineral development, and increased outdoor recreational use of private and State lands in the planning area are likely to continue throughout the life of the RMP. Cumulative impacts on wildlife might include the loss of wildlife habitat, including Sonoran and Mojave Desert tortoise, endangered species, migratory birds, bats, fish habitat, and migration corridors in the planning area on adjacent Federal, State, and private lands. Cumulative impacts for specific resources and resource uses are presented below.

4.15.1 AIR QUALITY

Growth in the planning area is likely to continue into the foreseeable future. With the continued use and development of BLM neighboring lands, dust is likely to persist as a problem in the planning area into the foreseeable future. Air resources on public lands may be affected by off-site use, agricultural activities, and development regardless of the RMP alternative selected. Because off-site sources are the major contributors to dust within the planning area, there would be negligible differences in cumulative impacts to air resources from the BLM activities proposed under each PRMP/FEIS alternative.

The lower Colorado River corridor serves an expanding clientele of boating recreationists. The public boater can access and impact air resources on public lands from many jurisdictions beyond the control of BLM. Of primary concern is noise pollution to sensitive shoreline and aquatic habitats from individual vessels or groups of vessels that exceed established noise limits. The ever increasing concentration of vessels on the river and reservoir on most summer weekends creates a cumulative noise level that is potentially harmful to human hearing and may be harmful to wildlife as well.

Growth beyond public lands is likely to continue to impact the quality of air resources on both the land and the water. In the long term, fugitive dust, particulates, noise, and engine exhaust contaminants would increase with population. In addition, proposed industrial developments within the planning area, such as a new oil refinery in Yuma County, would contribute additional cumulative impacts to air quality.

The cumulative impact of the existing and future Transportation Network is difficult to anticipate. The paving of roadways that are currently gravel will continue to improve air quality with regards to PM_{10}. Regional development would increase emissions and generate dust that would impact visibility. If popularity of OHV use increases, OHV traffic will increase and particulates and dust in popular recreational areas may exceed standards during periods of extensive use.

Certain military operations within the planning area have the potential to create periods of increased dust and PM_{10} emissions. Land clearing for military infrastructure, including training sites and tank routes, may also increase the incidence of airborne dust within the planning area. Future land withdrawals for the purpose of military use would potentially increase the types of direct impacts to air quality from additional route traffic and ammunition testing.

4.15.2 WATER RESOURCES

Cumulative impacts to water resources resulting from population growth, increased recreational use, construction, and other activities within and surrounding the planning area would continue and are likely to increase in the future. Because municipalities and water districts are the major water users within the planning area, there would be negligible differences in cumulative impacts to water resources from BLM actions proposed by alternative. Water resources on public lands may be affected by off-site use, recreation activities, development, and agricultural uses regardless of the RMP alternative selected. Water resources are likely to become increasingly scarce, and both public and private interests will need to focus efforts on conservation of this precious resource.

The lower Colorado and Gila rivers are expected to continue serving increases in visitor use. Recreational activities would continue to have potential adverse impacts on water quality throughout the planning area.

Reclamation is the Federal agency charged with regulating the delivery of lower Colorado River water to farmers, municipalities, Mexico, and other water users. Reclamation projects, such as the *Drop 2 Reservoir Project* in Imperial County, California, could potentially reduce groundwater levels within the Limitrophe reach of the river and increase water salinity levels below Imperial Dam. As population growth and water demands in the region continue to increase, cumulative impacts to water resources from similar types of activities within and adjacent to the planning area would likely increase. However, Reclamation would continue to manage and mitigate any antipated impacts to water resources to meet State, Federal, and international water quality standards.

Military operations and potential future withdrawals have the potential to impact water resources and desert woodland washes. Operation of aircraft near Senator Wash could increase the likelihood of accidental fluid spills and leaks, however, BMPs would minimize this threat. Cross-jurisdictional training operations could impact water resources that involve river crossings.

4.15.3 SOIL RESOURCES

Growth in the planning area would likely contribute to the modification of soil characteristics. A growing portion of soil resources would likely be compacted or paved by various activities throughout the area, regardless of public or private ownership. Public resources may ultimately sustain impacts through increased channel erosion rates throughout the watershed with sediment deposition in waterways. Landscape level erosion cannot be predicted due to lack of soil survey data. Alternatives D and the Proposed Plan would have the least adverse impacts to soil resources and therefore would have the fewest cumulative effects to soil resources. VRM designations and designation of only 400 acres Open OHV Management Areas under Alternative D and the Proposed Plan would reduce cumulative effects to soils. Alternative B has the potential to increase the cumulative impacts to soil resources in the planning area by proposing the most community pits, ROW Corridors, acreage of Open OHV Management Areas, and communications sites; Alternative B also proposes the smallest acreage of ACECs, SCRMAs,

lands to maintain wilderness characteristics, Closed OHV Management Areas, lands proposed for mineral withdrawal, and protective VRM designations.

The cumulative effects of energy development, transmission and storage are likely to increase throughout the life of the plan. As the growing western population demands more energy, the YFO will continue to attempt to accommodate these needs. Public lands would be marked with increased infrastructure and maintenance roads, which will likely increase the proliferation of OHV travel. The cumulative effect of energy development is significant for the fact that it impacts large areas of land for long durations of time. These projects also cumulatively degrade both soil and air quality from increased erosion and criteria pollution emissions. These cumulative impacts to soil resources within the planning area may increase as a result of an increased demand for renewable energy, such as wind and solar developments.

The cumulative effect of energy development on soil resources could vary by alternative. The need for energy development, transmission, and storage would not change as a result of this plan. However, the designation of ROW Corridors could affect the ability to confine impacts, thereby reducing degradation of uncontrolled energy growth in the planning area. Alternatives B and C would designate 129,900 acres of ROW Corridors. Alternative A would only designate 74,600 acres. Alternative D would designate 91,300 acres of ROW Corridors. The Proposed Plan would create 121,700 acres of ROW Corridors, which would control the cumulative effects of energy transmission and development by directing large utilities into areas that are already impacted by linear utility projects. Standard mitigation for utility projects would reduce cumulative effects to soil resources.

Travel Management policies under Alternative A enable a high density of dirt trails and access through sensitive soils, including desert washes. Under all other alternatives, including the Proposed Plan, the BLM would designate all roads and trails within the planning area, which may reduce the cumulative impacts to soil resources from motorized travel. The development and public use of recreational sites in the planning area have compacted and denuded significant soil resources causing long-term erosion, sedimentation, decreased vegetative diversity, and loss of habitat productivity. Open camping and firewood collection has led to diminished organic soil matter, decreased vegetative vigor, soil compaction in roads and campsites, and increased wind and water erosion rates. Establishment of SRMAs and special designations provides a future land use planning framework for a large portion of the planning area that would better define soil resource issues, mitigation, and remedies.

Expanded military ground operations would directly impact soil resources through compaction, erosion, and degradation of desert pavements. Expanded aerial military operations such as munitions testing would displace soils within impact zones and around the infrastructure needed to service those areas. However, the condition of soil resources outside of impact zones may improve due to decreased public accessibility and use.

4.15.4 VEGETATION RESOURCES

Vegetation resources on public lands may be affected by off-site use and development regardless of the RMP alternative selected. Impacts affecting soil resources would also affect vegetation resources in the planning area. Direct impacts of OHV use or cross-country travel has been well

documented and includes destruction of soil stabilizers, soil compaction, reduced rates of water infiltration, increased wind and water erosion, noise, decreased abundance of wildlife populations, and destruction of vegetation. Compaction of desert soil reduces the root growth of desert plants and makes it harder for seedlings to survive. Differences between alternatives may not be discernable for cumulative impacts to vegetative resources. However, Alternative D could offer some protective effects to the vegetative resource due to closing the entire planning area to personal use campfire wood collection, more acres closed to OHV, and more acres designated as ACECs.

Excessive motorized travel over time causes a decrease in plant life not only from trampling but also from proliferation of dust particles. Dust that is accumulated on plants can cause transpiration failure and eventual death of the plants (Lovich and Bainbridge 1999). Effects to soils, over time, cause erosion of soils, loss of topsoil, and compaction of soils. These impacts bring changes in the types of vegetation that can be sustained within these landscapes. Vegetation changes on the landscape over time change the diversity of the wildlife utilizing the area.

Due to the interest in securing our national borders and combating illegal immigration, drug trafficking and associated crime, it is likely that large-scale vegetation treatments will be performed within the planning area. Collectively these treatments pose a significant cumulative impact within the planning area. Specific vegetation treatments and border security infrastructure (such as fences, lights, gates and roads) could impact natural vegetation communities, especially within the riparian zone. In the arid southwest, these riparian areas are critical to the survival of many species, and the Limitrophe area, where several security related actions are planned, is a part of the neotropical migratory flyway. Special status wildlife including the southwestern willow flycatcher could be cumulatively impacted by loss of migratory habitat.

Any projects that ultimately lower the groundwater table adjacent to the Colorado River would have serious negative impacts on native vegetation and BLM restoration projects. Cottonwood and willow trees throughout the lower Colorado River would likely die or lose much of their live foliage depending on the degree of groundwater lowering. There would not be any differences between the alternatives to cumulative effects of riparian vegetation, because water pumping is done by private landowners or municipalities.

Military operations and withdrawals could negatively effect vegetation through the blading of access roads, training sites, and vehicular routes. Impact zones would additionally suffer vegetation loss from the explosion of ammunitions. The threat of wildfire in impact zones and adjacent lands would increase due to ammunitions testing, which would further impact the productivity of slow-growing native trees and cacti.

4.15.5 FISH AND WILDLIFE

With the continued use and development of BLM neighboring lands, cumulative impacts to fish and wildlife habitat are likely to persist as a problem in the planning area into the foreseeable future. Biological resources on public lands may be affected by off-site use and development regardless of the RMP alternative selected.

The impacts from increased local emissions from vehicles including boats are well documented on humans. The overall impacts to wildlife species, specifically endangered species, are unknown. Direct impacts of OHV use or cross-country travel has been well documented, and includes destruction of soil stabilizers, soil compaction, reduced rates of water infiltration, increased wind and water erosion, noise, decreased abundance of wildlife populations, and destruction of vegetation.

OHV traffic impacts desert tortoises and affects the amount and quality of forage available to the tortoises when they emerge from hibernation. Roads and highways pose several direct and indirect threats to tortoise populations. Roads and highways are considered the greatest cumulative threat to desert tortoise populations. As barriers, roads inhibit dispersal and subsequent gene flow between subpopulations and metapopulations. In providing access to tortoise populations, roads and highways foster such threats as development, vandalism, and collecting. Increased diversity and productivity of vegetation resulting from enhanced hydrological conditions along roadway edges attracts tortoises and thereby places them at a greater risk of direct mortality from both predators and motorized vehicles. Roadkills are a substantial source of mortality not only for desert tortoise but for other wildlife as well (Boarman et al. 1997).

The paving and expansion of road networks could negatively impact wildlife due to increased volume of vehicle travel at higher speeds. Much of the habitat described as desert wash woodlands are sustained by sheet flow from the neighboring desert pavement complexes. As these desert pavements are interrupted by roadway development, flow patterns are disturbed. Rain events are more likely to pool up and evaporate in roadway depressions and tracks or collect beside the right-of-way. Flows may be permanently interrupted and no longer feed certain wash woodlands.

The presence of humans, their activities, and noise reduce the value of aquatic vegetation to fish, shorebirds, waterfowl, and wildlife. Increased dispersed camping and/or day use may cause loss of such vegetation, which could affect deer, migratory birds, shorebirds (including the Yuma clapper rail), and waterfowl.

LCR MSCP incorporates long-term ecological restoration to mitigate for water delivery impacts. Depending on the density and degree of restoration, measures undertaken as part of the LCR MSCP would likely benefit wildlife due to the increase in quantity or quality of wildlife habitat.

Military training at recreation sites such as Squaw Lake and Oxbow involving amphibious vehicles and activities may negatively affect wildlife, including razorback sucker. Temporary disturbance of fish may occur during training exercises, and vehicles sunken due to accidents may release hazardous materials to the habitat.

The threat of wildfire would increase on public lands adjacent to the impact zones of ammunitions testing sites. Wildfires could potentially reduce the amount and quality of habitat for reptiles, songbirds, and other native wildlife.

USIBWC boundary marking and channeling involves removing vegetation, which would negatively impact wildlife, migrating and breeding birds. Removal of habitat would eliminate

stop-over habitat for migrating birds, which may reduce the chances of migrating birds reaching their wintering or breeding grounds. A reduction of breeding bird habitat (for example, doves) would reduce breeding bird populations.

The actions of other agencies could have positive and negative impacts on the Sonoran pronghorn population indirectly affecting YFO management of public land. Currently occupied habitat, not managed by YFO, is being impacted by border enforcement actions. Border enforcement impacts affect YFO's management of BLM-administered Sonoran pronghorn historic unoccupied habitat. The potential reintroduction of Sonoran pronghorn onto the Kofa NWR could affect YFO if they disperse onto BLM-administered land.

The establishment of the planned Area Service Highway between Interstate 8 and Mexico will likely cause negative impacts to flat-tailed horned lizard populations in the planning area through additional fragmentation of habitats and populations.

Disposal of State lands within historic flat-tailed horned lizard habitat would likely adversely affect flat-tailed horned lizards. State land holds significant, high-quality, flat-tailed horned lizard habitat in Arizona. Disposing of State lands would likely further fragment flat-tailed horned lizard populations, and negatively impact flat-tailed horned lizard on Federal lands that are adjacent to State lands. Young and Young (2005) found that negative impacts to flat-tailed horned lizard populations from development can extend hundreds of meters from urban or agricultural development.

4.15.6 WILD HORSE AND BURRO

The lower Colorado River provides a crucial portion of habitat for wild horses and burros in the planning area, particularly during the summer months. With community expansion and more extensive use of developed recreational facilities, wild horse and burro habitat could become severely limited.

Under all alternatives, the populations of wild horses and burros would remain at the AML_2 levels established in the 1980 Cibola-Trigo HMA Plan, and therefore the proposals in this PRMP/FEIS would not contribute to a State- or nation-wide decrease in wild horse and burro populations.

4.15.7 WILDLAND FIRE MANAGEMENT

As the population grows in the planning area, there is an ever-increasing risk of accidental fires to start. Border safety issues may also increase the potential risk for accidental fires.

Ammunitions testing by the military, coupled with the spread of invasive weeds and native annuals, could potentially increase the likelihood of wildfire occurrences throughout the planning area.

Cumulative effects to wildfire management would not be changed as a result of Alternatives A through D or the Proposed Plan.

4.15.8 CULTURAL RESOURCES

Incremental loss of cultural resources would continue due to natural processes and inadvertent or intentional damage from casual use mineral exploration and various recreational activities (e.g., OHV use, camping, horseback riding, shooting). Important cultural resource sites and SCRMAs tend to overlap with mining claims, established ROW Corridors, and popular recreation destinations along the Colorado and Gila River corridors and in mountain foothills. Cumulative impacts to cultural resources may occur due to an increase in demand for these multiple uses within areas that are known to contain important cultural resource values.

Together, all of the developments that are currently proposed within the planning area cumulatively affect the visual setting and integrity of feeling for cultural resources on BLM lands. Major ROWs, particularly power line corridors, have an effect on the viewsheds for important cultural sites on the landscape. Future developments, including energy and transportation ROWs, material pits, and community expansion, have the potential to directly impact, damage, or destroy cultural resources. The net loss of these cultural resources from development affects the overall cultural resource values of the landscape. Generally, there are more BLM-authorized developments proposed under Alternative B than the other alternatives. Alternative B would have the greatest cumulative effect on cultural resources, and Alternative D, which focuses on resource protection, would have the least amount of impacts from developments. Under the Proposed Plan, there would be eight ROW Corridors, 10 communications sites, and five community pits with a potential to cumulatively affect cultural resources on the public lands.

The transfer of lands out of Federal ownership by both the BLM and other Federal agencies also has the potential to cumulatively affect cultural resources in the planning area. The Wellton-Mohawk Transfer Act of June 20, 2000 (Public Law 106-221) authorized the Secretary of the Interior to convey certain acquired, withdrawn, and public lands to the WMIDD. Under the FEIS for this transfer of lands from Reclamation to the WMIDD, parcels of land inside the boundaries of four proposed SCRMAs would be relinquished from Federal ownership. Approximately 395 acres are identified for transfer in the Muggins Mountains SCRMA, 340 acres in the Laguna Mountains SCRMA, 444 acres in the Ligurta Area SCRMA, and 303 acres in the North Gila Mountains SCRMA. There is a potential for increased development on these lands once they leave Federal ownership, which could indirectly affect the cultural resources inside these SCRMA proposals. In addition to lands identified for transfer out of Federal ownership by agencies other than BLM, Alternatives A and B identify 19,100 and 46,900 acres for disposal, respectively. These two alternatives would have a greater cumulative impact on cultural resources than the Proposed Plan, which identifies 11,900 acres of BLM land for disposal.

4.15.9 PALEONTOLOGICAL RESOURCES

Cumulative impacts to paleontological resources may occur through natural processes and inadvertent or intentional damage from OHV use, casual use mineral exploration, rock-hounding, and recreational collecting of common invertebrate and plant fossils. Unmonitored rock-hounding and recreational fossil collecting at known fossil localities have the potential to destroy those localities before they can be scientifically recorded and studied. An increase in

development along the Gila River and Colorado River valleys (e.g., energy and transportation ROWs, mineral material pits, and new water control features) has the potential to destroy important paleontological resources.

The transfer of lands out of Federal ownership by both the BLM and other Federal agencies also has the potential to cumulatively affect paleontological resources in the planning area. Once these lands are transferred, fossil localities on those lands could be damaged and/or destroyed by new developments. In addition to lands identified for transfer out of Federal ownership by agencies other than BLM, Alternatives A and B identify 19,100 and 46,900 acres for disposal, respectively. These two alternatives would have a greater cumulative impact on paleontological resources than the Proposed Plan, which identifies 11,900 acres of BLM land for disposal.

4.15.10 VISUAL RESOURCES

Cumulative impacts to visual resources would potentially occur where BLM-administered lands are co-managed with other government agencies or are adjacent to non-BLM lands. Non-discretionary Reclamation activities, such as the maintenance of river levees and sand and gravel operations, are likely to continue impacting the visual landscape along portions of the lower Colorado River. Border initiatives, such as activities associated with vegetation removal, would continue to result in negative effects in areas where visibility, accessibility, and security concerns override the protection of visual resource values. In other areas where BLM lands are adjacent to and intermingled with those of other landowners, activities and development of adjacent lands would contribute to impaired views of BLM-administered lands. The disposal of BLM lands may result in negative impacts to visual resources through the development of these lands. However, these impacts would likely be minimal since most lands that would be available for disposal are isolated parcels surrounded by private lands that are already developed or are adjacent to communities that already have significant developments. In addition, the disposal of BLM lands through the exchange of other lands may offset any cumulative impacts to the planning area's visual resources.

The growing populations within and adjacent to the planning area are causing increased energy consumption and a higher demand for construction materials. The BLM is often asked to support this population growth through authorizations to upgrade or install utility lines and the issuance of mineral material contracts. The designation of ROW Corridors and the BLM's VRM system seek to minimize impacts to the planning area's desert landscapes. However, many of these types of projects would require the preparation of an EIS or RMP amendment, which may enable project proponents to override RMP–level VRM designations. Cumulative impacts to the visual resources of BLM lands are therefore likely to occur as these types of activities continue to become more common within the planning area.

Cumulative impacts to visual resources within the planning area may be more severe under Alternative B, which proposes the highest number of ROW Corridors, community pits, communications sites, and acres of BLM land that would be available for disposal. It is not likely that there would be any differences in cumulative impacts to visual resources under any of the other PRMP/FEIS alternatives.

4.15.11 WILDERNESS CHARACTERISTICS

Impacts to public lands with wilderness characteristics can be portrayed as those actions that result in the deterioration of opportunities to experience naturalness, solitude, and primitive unconfined recreation. These include actions that may decrease the natural setting of an area, cause increased interaction between users, or add evidence of human-induced management controls. Due to the remote nature of the public lands the YFO has identified to maintain wilderness characteristics under the Proposed Plan, it is unlikely that significant impacts to wilderness characteristics would occur from projects such as public utilities. Existing and future mining activities provide the greatest potential to negatively impact the opportunities to experience naturalness, solitude, and primitive unconfined recreation in lands with wilderness characteristics. Mining activities and the access routes to mining claims cause additional unnatural disturbances to the land and increase the likelihood of visitors seeing or hearing other human activities. The sights and sounds of adjacent military operations and overhead flight paths also negatively impact opportunities to experience naturalness and solitude. Future military withdrawals within the planning area would increase the likelihood of these types of impacts. Other potential impacts to lands with wilderness characteristics in the planning area include the spread of non-native invasive vegetation and increasing amounts of OHV use. As population growth in the western U.S. continues, all of these activities are likely to increasingly impact the management of lands with wilderness characteristics.

Cumulative impacts to wilderness characteristics would be the most prevalent under Alternative D, which identifies the most acreage where wilderness characteristics would be maintained. This would provide the public with the greatest amount of opportunities to experience naturalness, solitude, and primitive and unconfined types of recreation. However, impacts to these experiences from mining activities, OHV use, military operations, overhead flight paths, and public utilities would also be more common under Alternative D because there is a larger acreage of lands identified to maintain wilderness characteristics. It is not likely that there would be a difference in cumulative impacts to wilderness characteristics under any of the other PRMP/FEIS alternatives.

4.15.12 SPECIAL DESIGNATIONS

A. WILDERNESS

Traffic from undocumented immigration and smuggling activities occurs within designated Wilderness Areas managed by the YFO. The U.S. Customs and Border Protection - Border Patrol often respond accordingly to the issues occurring in these areas. These activities can result in abandoned vehicles, vehicle tracks, smuggling supply caches, and accumulations of trash and human waste within the Wilderness Areas and along Wilderness access routes. These manmade intrusions negatively impact the wilderness values of these areas, which the BLM is mandated to preserve and protect in a natural condition.

Since the number of acres of Wilderness and the management prescriptions within Wilderness do not vary by alternative under this PRMP/FEIS, the cumulative impacts to Wilderness do not vary by alternative.

B. NATIONAL TRAILS

Of the 47,626 acres of Federal lands currently being transferred from Reclamation to the WMIDD, approximately 9,700 acres are located within the Anza Trail corridor established by the NPS Comprehensive Management and Use Plan for the Anza Trail. The NPS plan calls for a continuous multi-use recreational trail within this corridor. In the future, the transfer of these 9,700 acres out of Federal ownership may affect the location and/or public access to a recreational Anza Trail. Reclamation's FEIS for the Wellton-Mohawk Title Transfer states that the WMIDD "will work with the NPS to facilitate a mutually agreeable plan for portions of the trail within the jurisdiction of the District," and that the WMIDD "does not intend to alter public access to the lands proposed for transfer except on tracts that may be developed or established for conservation purposes" (USDOI Reclamation 2006). Under all alternatives, these efforts by the WMIDD would reduce the potential impacts to a future recreational Anza Trail. Since the designation of the Anza Trail and its management prescriptions do not vary by alternative under this PRMP/FEIS, the cumulative impacts to National Trails do not vary by alternative.

C. NATIONAL BYWAYS

The PRMP/FEIS Proposed Plan proposes to nominate and designate Highway 95 between the Town of Quartzsite and Yuma as a National Scenic Byway due to its scenic, historic, natural, and recreational qualities. There is the potential for these resource values to be impacted from a variety of externally initiated projects, including the widening of the road to four lanes and the installation of additional visible public utilities. The removal of lands along Highway 95 from the YFO's jurisdiction would decrease the BLM's ability to ensure that future projects are appropriately mitigated to protect the Byway's identified resource values. Because Alternative B proposes the highest number and miles of National Back Country Byways, it is more likely that cumulative impacts to recognized byway values would occur from other BLM-authorized activities under this alternative.

D. AREAS OF CRITICAL ENVIRONMENTAL CONCERN

The increasing pressures of urban encroachment, population growth, and increasing use of public lands all have impacts and effects on those areas proposed for designation as ACECs under the different alternatives. Developments on non-BLM-administered lands that are adjacent to or within ACECs have the potential to either directly or indirectly degrade relevant and important ACEC values. ACEC proposals that consist of noncontiguous BLM land or ACEC proposals surrounded by non-BLM lands would likely be more affected by these developments.

The Gila River Terraces and Trails ACEC included under Alternative D is an example of an ACEC proposal that could be affected by the cumulative impacts of developments on adjacent lands. The BLM administers approximately 37 percent of the proposed 140,400-acre ACEC. Uses in this area include energy corridors, mineral material pits, agriculture, recreational OHV use, and population growth/community expansion. In addition, a large percentage of the lands identified for transfer from Reclamation to the WMIDD are located along the Gila River corridor, which would reduce the acreage of public lands within the proposed ACEC. The sensitive resources located on the remaining public lands in the area would be managed

according to the Proposed Plan Management Strategy found in Appendix 2-A, which would reduce the cumulative impacts to these values.

Meeting the desired future conditions for the Limitrophe ACEC, which is proposed under Alternative D, is dependent upon the coordination of multiple stakeholders. The various border safety and water management projects anticipated in the foreseeable future or currently ongoing could cumulatively affect the relevant and important values of the Limitrophe area, including riparian vegetation, Native American traditional use of the area, and maintenance of the area's natural setting.

In the Big Marias ACEC, there are several overlapping uses that cumulatively affect the relevant and important values for this area. An important energy corridor along Highway 95, an established communications site in the Big Maria Mountains, water control projects along the Colorado River, and recreational OHV use all affect the resources in this area, particularly causing increased impacts to the sensitive intaglios and other cultural resources in this ACEC.

The Dripping Springs ACEC proposal is primarily affected by population growth/community expansion, particularly from the direction of the Town of Quartzsite and increased recreational use of the area for OHV riding and hunting.

Cumulative impacts that could affect the resource values of the Alternative D Walters Camp ACEC proposal primarily result from the recreational use of the area. The Walters Camp recreation concession lease and the population growth and community expansion on adjacent private lands result in an increasing number of people using BLM lands for recreational OHV riding. As the population surrounding the Walters Camp area increases, it is more likely that there would be impacts to the area's natural and cultural resource values.

The wildlife values within the Alternative D Palomas Plains ACEC proposal are most likely to be cumulatively affected by any actions that fragment or decrease the contiguous BLM-administered habitat in the Palomas Plains, which could include energy projects, transportation ROWs, and withdrawals, disposals, or land sales.

The relevant and important values of the Sears Point ACEC could be cumulatively affected by developments that occur on private or State lands that are either within or adjacent to the ACEC. In addition, community expansion and population growth from surrounding communities increases the number of people that are visiting the ACEC area for OHV riding, hunting, and cultural resource viewing opportunities.

Alternative D would designate 626,800 acres within seven ACECs. Considering the increase in demand for recreation, lands and realty, and minerals developments both within and adjacent to the planning area, this alternative would provide the greatest amount of protection for natural and cultural resources. Alternatives C and the Proposed Plan each would designate 44,700 acres, providing special management attention in the areas surrounding the Big Marias, Dripping Springs, and Sears Point. Alternatives A and B, which each designate 8,200 acres, provide the least amount of protection.

4.15.13 LIVESTOCK GRAZING

Expanding use of public lands for recreational purposes and the improved access for such activities, livestock grazing use would likely continue to be adversely affected. Recreational activities include developed RV parks, home sites, businesses, and many of the visitors utilizing the public lands for OHV travel. These activities could disrupt existing grazing use, particularly as cattle are excluded from private lands as they are developed. These impacts would not vary by alternative.

4.15.14 MINERAL RESOURCES

As populations increase, the demand on public lands for goods and services will increase as well. Scarcity of resources such as minerals, gravel, and decorative rock will continually steer businesses to public lands for extraction of these resources. Mineral withdrawals will slightly impact the availability of minerals for extraction. Mitigation requirements to protect other resource values may increase costs and efforts involved in mineral extractions on public lands. Future military withdrawals would potentially decrease the amount of lands available for mineral exploration and extraction within the planning area. Mineral withdrawals proposed in some of the alternatives are within ACECs having low mineral potential. Cumulative effects to mineral resources would not change as a result of the alternatives because mineral extraction is driven by public demand.

4.15.15 RECREATION

The continuous rates of urban development are increasingly encroaching on the BLM lands within the planning area. Many public lands that were formerly remote and used by a small number of people now provide convenient “backyard” recreational opportunities that are used on a regular basis by an unprecedented number of visitors participating in a wider variety of activities. The rising recreational demands within the planning area are contributing to substantial shifts in the traditional use patterns of the public lands, and causing visitors to seek undeveloped and solitary recreation opportunities in other areas.

The multiple-use public lands within the planning area are facing additional challenges to meet the infrastructure demands needed to sustain the current rates of urban development. Both the public and private sector are increasingly relying on the public lands for sources of mineral materials, such as sand and gravel, for road and building construction. The development of private lands is also causing an increasing number of requests for the construction of new roads and utility lines across the public lands to support both individual residences and communities. All of these actions have the potential to displace existing recreational activities and impede visitors’ enjoyment of their public lands.

The YFO is receiving an increasing number of requests from military and law enforcement agencies to use developed recreation sites for training activities. These activities have the potential to temporarily displace the recreational activities these sites were created to support. The YFO would work with the individual agencies to limit these training activities’ potential impacts to the recreating public on a case-by-case basis. Lands withdrawn for military purposes

typically maintain access control procedures (e.g. permits) to insure public health and safety. Future military withdrawals within the planning area could temporarily or permanently restrict public access on BLM-administered lands that are currently available for public use.

Reclamation and the WMIDD's management of the lower Colorado and Gila Rivers within the planning area have the potential to impact water-based recreational opportunities within the planning area. Reclamation's non-discretionary activities, such as the construction and maintenance of levee roads and the delivery of water rights that reduce river flows, can impede recreational access to the lower Colorado River. Some of Reclamation's activities, such as the proposed Laguna Dam Restoration project, have the potential to enhance water-based recreational activities through the creation of additional open water. Present and future activities to be completed by Reclamation's LCR MSCP will improve or create wildlife habitat along the lower Colorado River, which will enhance wildlife viewing opportunities within the planning area. Reclamation's FEIS for the Wellton-Mohawk Title Transfer states that the WMIDD "does not intend to alter public access to the lands proposed for transfer except on tracts that may be developed or established for conservation purposes." These efforts by the WMIDD would reduce the potential impacts to recreational use of the Gila River.

Cumulative impacts to recreation may be more severe under Alternative D of the PRMP/FEIS, which would not consider expanding the number or acreage of developed recreation sites. As population growth within and around the planning area continues, the potential for overcrowding and overuse of developed recreation facilities may be more common under Alternative D. This may degrade or displace existing recreational opportunities and experiences within developed recreation sites. The BLM would consider expanding the number or acreage of developed recreation sites under all other PRMP/FEIS alternatives, which would prevent these types of cumulative impacts to recreation from permanently occurring.

4.15.16 TRAVEL MANAGEMENT

Impacts to travel management (i.e. motorized and non-motorized uses of the public lands) have similarities to those discussed for recreation. The increasing amount of multiple-use demands on BLM lands, such as public utilities, road construction, and sand and gravel operations, typically decrease the amount of public land available for motorized and non-motorized forms of recreation, disrupt the existing transportation network, and impede public access to BLM land.

The increasing amount of commercial and residential development adjacent to the public lands has the potential to impede public access onto BLM-administered lands. The sale of Arizona State Trust land to private parties or individuals can also facilitate the development of land adjacent to BLM lands. These impacts primarily occur when the private land being developed has provided historical access into the public lands, and no other access exists. The BLM would attempt to reduce these impacts by working with individual private developers and land owners to procure legal access onto the public lands as these situations occur.

Travel management within the planning area is regulated by a variety of entities besides the BLM, including the YPG, BMGR, Kofa NWR, Imperial NWR, Cibola NWR, Cabeza Prieta NWR, Reclamation, Arizona State Lands Department, three Native American tribes (Cocopah, Quechan, and CRIT), and private property owners. Recreational public access within the YPG,

BMGR, Arizona State Lands, and three Native American reservations is either prohibited or regulated by permit. In 2005, the Colorado River Indian Reservation Boundary Correction Act (P.L. 109-47) restored approximately 15,400 acres of public land managed by BLM back to the jurisdiction of the CRIT. These restored lands included a number of OHV routes that had previously been available for public use, including one of two OHV routes crossing the Dome Rock Mountains and connecting the communities of Quartzsite and Ehrenberg. Additional large-scale limitations to public use of existing BLM land would contribute to further cumulative impacts to public access within the planning area.

Within or adjacent to the planning area, the BLM Yuma, Palm Springs, and El Centro Field Offices and the Kofa, Imperial, and Cabeza Prieta NWRs collectively manage approximately 1,366,200 acres of designated Wilderness where motorized use is strictly prohibited. As such, non-Wilderness BLM lands provide a majority of the planning area's existing motorized recreational opportunities. Alternative D of this PRMP/FEIS, which proposes to designate the most acreage of non-Wilderness Closed OHV Management Areas, would further reduce the amount of public land available for motorized uses and simultaneously increase the amount of public land available solely for non-motorized uses. It is not likely that there would be any differences in cumulative impacts to travel management under any of the other PRMP/FEIS alternatives.

4.15.17 LANDS AND REALTY MANAGEMENT

In portions of the planning area where communities are sustaining substantial growth, it is anticipated that requests for land use authorizations and disposals would increase. If the magnitude of conflicts between wildlife habitat conservation and land-use authorizations increase, the availability and/or feasibility of land-use authorizations could be diminished.

National security issues along the International Boundary and the potential expansion of military missions may increase the demand for land-use authorizations and military withdrawals within the planning area.

Alternative D proposes the most acreage of ACECs and lands with wilderness characteristics; Alternative D also proposes a smaller number of ROW Corridors, communications sites, and the smallest acreage of public lands available for disposal. These Alternative D proposals could potentially contribute to a reduced capacity to meet demands for community growth within the planning area. Alternative B proposes the largest acreage of lands available for disposal, the most ROW Corridors, and the most communications sites; Alternative B also proposes the smallest acreage of ACECs and lands with wilderness characteristics. These Alternative B proposals could potentially maximize the BLM's capacity to meet demands for community growth with the planning area. It is not likely that there would be any discernible differences to the cumulative impacts to Lands and Realty Management under Alternatives A, C, and the Proposed Plan.

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CHAPTER 5.0
CONSULTATION AND COORDINATION

5.1 INTRODUCTION

Chapter 5 describes the consultation and coordination activities the BLM conducted while preparing this PRMP/FEIS. Input was obtained in a variety of ways throughout the process. Both formal and informal efforts were made to involve the public, other Federal agencies, Native American tribes, and State and local governments. The information in this chapter is supplemental to public meeting and cooperating agency information provided in Chapter 1. Sections 5.2, 5.3, and 5.4 describe efforts made to collaborate and cooperate with the general public, land owners, managers; and Federal, State and Tribal agencies in the development of this land use plan. Section 5.5 describes the process used to catalogue and respond to comments that were received on the DRMP/DEIS, including a summary of the comments and corresponding responses. A list of persons who have contributed to the preparation of the DRMP/DEIS and/or the PRMP/FEIS is included in Section 5.6.

5.2 SPECIFIC COLLABORATIVE PLANNING ACTIONS

5.2.1 MEETINGS/PUBLIC OPPORTUNITY FOR INPUT

A. SCOPING MEETINGS

Four public Scoping meetings/open houses were conducted from June 1 through 4, 2004, in Yuma, the Town of Quartzsite, and Roll, Arizona; and in Blythe, California. Interested public, government, internal agency staffs, and others were invited to attend the Scoping meetings. Information about the DRMP/DEIS process was presented and public comment and expressions of public concern were accepted at the meeting and throughout the Scoping period. The Scoping period was open from March 30 through June 30, 2004.

B. ALTERNATIVES FORMULATION WORKSHOPS

Four public workshops were held as part of the Alternative Development process. These meetings were held March 7 through 10, 2005, in the Town of Quartzsite, Yuma, and Wellton, Arizona; and in Blythe, California. The goal of these workshops was to engage the public in the alternative development process and gather input on how various issues should be addressed in the development of the draft alternatives.

The workshops were held in open house format, with stations staffed by BLM and contractor employees to address the following four subject areas: Lands and Realty, Recreation, Natural and Cultural Resources, and Transportation. Poster-sized maps were prepared and displayed at each station. Additionally, a package of handouts was provided to each attendee. The handouts included a questionnaire/comment form for each topic area that attendees were asked to complete and return before leaving, or by the end of the comment period on April 11, 2005.

C. DRAFT ALTERNATIVE PRESENTATION WORKSHOPS

Five public workshops were held July 25 through 28, 2005. They were conducted in the same four locations as the alternative development workshops (Town of Quartzsite, Yuma, and Wellton/Roll, Arizona; and Blythe, California), but were held in different facilities. An additional meeting was also held in Tucson, Arizona.

The workshops began with a brief overview of the RMP process and the preliminary draft alternatives. Following this presentation, participants were given the opportunity to circulate to various stations that were facilitated by YFO and contractor staff. The subject areas addressed included: Transportation and Public Access; Recreation; Wilderness; Visual Resource Management; Wilderness Characteristics; Lands and Minerals; Natural and Cultural Resources; and Special Designations.

Materials provided to the public included maps that identified the impacts of the four proposed alternatives on specific resources throughout the planning area. The maps were displayed as posters along with poster-sized text that described the impacts of the proposed alternatives. The descriptive text was also provided to attendees as a handout, along with a meeting agenda. Staff collected comments on flipcharts from attendees regarding changes or additions to be considered in development of the final range of alternatives.

D. DRMP/DEIS PUBLIC MEETINGS

Five formal public meetings were held during the public comment period on the DRMP/DEIS. These meetings were held February 5 through 8, 2007 in Wellton, the Town of Quartzsite, Yuma, and Tucson, Arizona; and in Blythe, California. The meetings provided an opportunity for interested members of the public to learn more about the analysis contained in the DRMP/DEIS, as well as an opportunity for attendees to provide comments, written and oral, on the document.

5.2.2 PUBLICATIONS

A variety of publications have been generated for public information about this planning project. These include but are not limited to the following:

A. NOTICES

The official start of the YFO RMP/EIS and public scoping process began with a Notice of Intent to prepare an RMP and EIS published in the Federal Register on March 30, 2004 (Vol. 69, Number 61, Pages 16608-16609, [AZ 050-04-1610-DO; 1610]).

A legal notice was sent to three primary newspapers to announce the Notice of Intent to prepare an RMP. Notices were published in the Yuma Daily Sun, Palo Verde Times, and the Arizona Republic. YFO intends to publish legal notices for the availability of the PRMP/FEIS.

A Notice of Availability (NOA) was published on December 15, 2006, announcing a 90 day public comment period on the DRMP/DEIS. A NOA was published in April 2008 announcing the availability of this PRMP/FEIS.

B. NEWSPAPERS

A press release describing key elements of the DRMP/DEIS was sent to local papers such as the Yuma Daily Sun, Palo Verde Times, Bajo El Sol (Spanish language publication), and the Arizona Republic. Press releases were also sent to local radio and television stations. Press releases are prepared to announce major milestones in the project such as issue resolution, alternative recommendations, and the public comment period. Press releases are used to announce public meetings, tours, and other public activities.

C. PLANNING BULLETINS

Planning bulletins are prepared and mailed on a regular basis throughout the project. Bulletins contain information regarding the ongoing planning effort, opportunities for public involvement, and information regarding the community collaboration effort. Each bulletin is developed, reviewed, and mailed to interested parties as identified on BLM's mailing list.

The first Planning Bulletin, which was sent November 2004, included a summary of issues identified during the scoping process as well as the project schedule and next steps.

The second Planning Bulletin distributed in August 2005 described the preliminary draft alternatives, how they were developed, and the management strategies proposed.

The third Planning Bulletin distributed in December 2006 announced the publication of the DRMP/DEIS, summarized the alternatives considered in the DRMP, and announced dates, times, and locations for public meetings on the DRMP.

The fourth Planning Bulletin was distributed prior to the April 2008 release of the NOA to announce the availability of this PRMP/FEIS.

5.2.3 WEB SITE

During development of the DRMP/DEIS, an interactive Web site was being hosted at <http://www.blm.gov/az/LUP/yuma/yuma_plan.htm> to communicate with and update the public, cooperating agencies, and BLM offices on the status of the project. Materials placed on the site included general background information, schedules, news/events, meetings, information on how to get involved, reports, and maps.

5.2.4 MAILING LIST

The YFO utilizes the National Mailing List System, a national database that includes local, State, and Federal agencies, Native American tribes, organizations, and individuals. The list has been updated on an as needed/as requested basis. Attendees at public meetings and workshops are given the opportunity to add their names to the mailing list on registration sheets. The initial distribution for announcements was approximately 1,300 mailings. The distribution has since grown to over 1,750 mailings.

5.3 INTERRELATIONSHIPS

The scattered nature of BLM-administered land in the planning area makes it essential for YFO to collaborate, cooperate, and coordinate with adjacent and intermingled land owners and managers in the development and implementation of this land use plan.

5.3.1 MULTI-AGENCY COORDINATION

BLM coordinates its fire management activities with the actions of related Federal and State agencies responsible for fire management. The Federal Wildland Fire Policy is a collaborative effort that includes the BLM, U.S. Forest Service, NPS, USFWS, Bureau of Indian Affairs, the USGS Biological Resources Division, and State wildlife management organizations. The collaborative effort has formulated and standardized the guiding principals and priorities of wildland fire management. Collaboration of the Federal Wildland Fire Policy on a nationwide scale has provided common priorities and objectives for Federal land management agencies including protection of human life, property, and natural/cultural resources as secondary priorities. This policy also provides recognition of wildland fire as a critical natural process that should be safely reintroduced into ecosystems that are wildfire dependent across agency boundaries. The National Fire Plan is a collaborative interagency effort to apply the Federal Wildland Policy to all Federal land management agencies and partners in State forestry or lands departments. Operational collaboration between the BLM, U.S. Forest Service, NPS, and USFWS is included in the Interagency Standards for Fire and Fire Aviation Operations 2003. This federally approved document addresses fire management, wildfire suppression, fuels management and prescribed fire safety, interagency coordination and cooperation, qualifications and training, objectives, performance standards, and fire management program administration.

5.3.2 FEDERAL AGENCIES

As a part of this planning effort and in implementing on-the-ground activities, BLM executes ESA Section 7 consultation with the USFWS. In 2001, BLM and USFWS finalized a consultation agreement to establish an effective and cooperative ESA Section 7 consultation process. The agreement defines the process, products, actions, schedule, and expectations of BLM and USFWS on project consultation. One Biological Assessment was prepared to determine the effect of the DRMP/DEIS Preferred Alternative on all relevant listed, proposed, and candidate species, and associated critical habitat. The Biological Assessment exposed all expected environmental effects, conservation actions, mitigation, and monitoring including

analysis of all direct and indirect effects of plan decisions and any interrelated and interdependent actions. As this plan's decisions are implemented, BLM would initiate more site-specific consultation on actions determined through environmental analysis to potentially affect species listed or candidate species for listing under the ESA.

Reclamation and other cooperators completed the Lower Colorado River Multi-Species Conservation Program in 2005. The LCR MSCP is a coordinated, comprehensive, long-term multi-agency effort to conserve and work toward the recovery of endangered species, and to protect and maintain wildlife habitat on the lower Colorado River. All participating USDOI officials are directed to cooperate and implement such agreements to achieve the important species conservation actions identified within the LCR MSCP. BLM is a partner in the LCR MSCP, and the YFO has been involved and will continue to strive to achieve LCR MSCP goals and objectives that are within the scope of BLM's mission. YFO will continue to identify opportunities to work with Reclamation on implementing program projects, and, to the maximum extent practicable, give those projects priority.

Examples of partnering relationships that the YFO either has now or may pursue with other Federal agencies include but would not be limited to the following.

- For Special Designations (Back Country Byways, ACECs, NHTs, and/or Wilderness) and CMAs: BLM El Centro, Palm Springs, Lake Havasu and Lower Sonoran Field Offices; USFWS at Cibola, Imperial, and Kofa NWRs; Border Patrol, YPG, NPS, USIBWC, EPA, Yuma Crossing National Heritage Area, Bureau of Indian Affairs, and Reclamation.
- For fire-related issues and activities: USFWS at Cibola, Imperial, and Kofa NWRs, Bureau of Indian Affairs, USGS, Reclamation, NRCS, YPG, and the MCAS–Yuma.
- For vegetation and Cooperative Weed Management: USFWS at Cibola, Imperial, and Kofa NWRs, NRCS, and the USDA Animal Plant Health Inspection Service.
- For fish and wildlife and special status species: USFWS and Reclamation.
- For livestock grazing issues: USFWS.
- For wild horse and burro issues: USFWS at Cibola, Imperial, and Kofa NWRs, YPG, and the Border Patrol.
- For recreation issues and opportunities: USFWS at Cibola, Imperial, and Kofa NWRs, YPG, MCAS–Yuma, BMGR, Reclamation, and possibly the FHWA.
- For travel management: FHWA.
- For soil resources: NRCS.
- For water resources: Reclamation, EPA, and the USIBWC.
- For lands and realty issues: Reclamation, Border Patrol (Department of Homeland Security), FHWA, Bureau of Indian Affairs, YPG, and USFWS at Cibola, Imperial, and Kofa NWRs.
- For minerals: Reclamation, FHWA.
- For hazardous materials: EPA.
- For public health and safety issues: EPA, Reclamation, YPG, MCAS–Yuma, BMGR, Border Patrol, and the U.S. Army Corps of Engineers.

5.3.3 STATE AND LOCAL GOVERNMENTS

The BLM cultural resource management program operates under a Programmatic Agreement (USDOI BLM 1997e), which was executed by the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers on March 26, 1997. The Programmatic Agreement legally replaces 36 CFR Part 800 as the procedural basis for BLM managers to meet their responsibilities under Sections 106, 110(f), and 111(a) of the NHPA. BLM also follows State-specific BLM-SHPO Protocols (USDOI BLM 1997f and 1997g), which were developed to implement the Programmatic Agreement. The YFO works closely with the Arizona and California SHPOs to satisfy the working relationships set forth in the national Programmatic Agreement and the State Protocols, and to follow these specific procedures for consultation between the BLM and the SHPO.

Both the Arizona SHPO and California SHPO were invited to participate in this planning effort. The SHPOs were invited to join the plan as cooperating agencies, and they received notification of agency and public meetings throughout the development of the plan. Letters seeking additional comments were sent to the Arizona and California SHPOs in March 2007. At a meeting with the Arizona SHPO on April 3, 2007, BLM gave a presentation on the range of alternatives and provided the SHPO with another opportunity to ask questions or to provide the BLM with verbal comments. Input received was incorporated into the PRMP/FEIS. As the plan's decisions are implemented, YFO will continue to meet its obligations for coordination and consultation with the Arizona and California SHPOs.

The Sikes Act (16 U.S.C. 670 et seq.) authorizes the USDOI, in cooperation with State agencies responsible for administering fish and game laws, to plan, develop, maintain, and coordinate programs for conserving and rehabilitating wildlife, fish, and game on public lands within its jurisdiction. The plans must conform to overall land use and management plans for the lands involved. The plans could include habitat improvement projects and related activities and adequate protection for species of fish, wildlife, and plants considered endangered or threatened.

BLM must also coordinate with suitable State agencies in managing State-listed plant and animal species when the State has formally made such designations.

BLM is responsible for management of wildlife habitats on public lands, while the AGFD and CDFG are responsible for managing wildlife populations and game harvest. Continued efforts would be made to coordinate with AGFD and CDFG for opportunities to enhance wildlife habitat, species diversity, and riparian health. Coordination occurs between the agencies on management plans and activities to achieve the optimum health of wildlife species and populations.

The AGFD and BLM work cooperatively to manage resources throughout the State of Arizona. While BLM is responsible for managing wildlife habitat on BLM-administered land, the AGFD, through the authority of the Arizona Game and Fish Commission, has public trust responsibility to manage fish and wildlife populations. The AGFD and BLM consider the management of fish and wildlife resources as a high priority, and agree to work cooperatively to achieve a shared goal to actively manage, sustain, and enhance those resources. The AGFD mandate to meet statutory trust responsibilities to manage fish and wildlife populations is supported by the BLM

and incorporated within the goals and objectives in BLM's RMPs. All implementation level plans and site-specific projects will be evaluated and finalized through appropriate coordination, partnerships, and processes that reflect the spirit and intent of the Statewide MOU.

Throughout the PRMP/FEIS, the close, cooperative nature of the relationship between BLM and AGFD is cited. At the writing of the PRMP/FEIS, AGFD and BLM are revising the current Master MOU. The MOU establishes protocols that direct the cooperative working relationship between the agencies. The MOU will provide context to better enable both agencies to work in partnership and to make decisions in a consistent manner across the State. The guidelines established in the MOU apply to implementation of this RMP. In addition, an MOU has been signed giving AGFD cooperating agency status on BLM planning efforts in Arizona.

Coordination with AGFD during development of management plans and enhancement of wildlife habitat, species diversity, riparian health and other activities to achieve the optimum health of wildlife species and populations will continue. Administrative access may be allowed for AGFD staff for law enforcement, natural resource management, and other purposes. AGFD's use of motorized and mechanized equipment off designated routes is considered an administrative use and will be allowed in suitable locations (as agreed to by AGFD and BLM) for such purposes including, but not limited to the following: law enforcement activities, wildlife water supplementation (i.e., water hauling and maintenance, repair, building, or rebuilding of wildlife waters), collar retrieval, capture and release of wildlife, telemetry, surveys, habitat evaluation, habitat manipulation (forage enhancement, burning, vegetation clearing, planting, etc.), fence construction (enclosures/exclosures), and research activities.

To further promote interagency coordination, a Cooperative Agreement was signed between BLM and AGFD, establishing a liaison position in the AGFD. This liaison is assigned coordination responsibility on all ongoing land use plans and spends a portion of their work schedule in the BLM Arizona State Office.

Regional transportation planning and construction of roadways and highways is generally conducted by State or regional agencies, such as ADOT, county departments of transportation, and city transportation departments. When these agencies plan and develop roadways that cross public lands, BLM would coordinate with the responsible agency to develop design features that minimize the fragmenting effect of the planned roadway. BLM would work with the responsible agency to evaluate and incorporate safe and effective wildlife crossings to ensure species long-term viability and maintaining habitat connectivity. Where planned roadways potentially fragment other resources, such as (but not limited to) routes, grazing allotments, or mining operations, BLM would work with the responsible agency to provide continued connectivity for those purposes as well. BLM would also work with the agency to provide continued safe access to public lands from any developed roadway for recreation and other public land users.

Examples of partnering relationships that the YFO either has now or may pursue with State and local government agencies or entities include but would not be limited to the following.

- For Special Designations (Back Country Byways, NHTs, and ACECs): Arizona State Land Department, ADOT, and AGFD; CDFG, Counties of Yuma, La Paz, Maricopa, and Riverside, Cities of Yuma and Blythe, Towns of Cibola and Quartzsite.
- For Coordinated Management Areas: Arizona State Land Department and AGFD; Yuma County and City of Yuma.
- For fire-related issues and activities: Arizona State Land Department, ADOT, ADEQ and AGFD; CDFG, City of Yuma, and Counties of Yuma, La Paz, Imperial, Riverside, and Mohave.
- For fish and wildlife and special status species: AGFD and ADOT; CDFG, and California Department of Transportation.
- For livestock grazing issues: Arizona State Lands Department and AGFD.
- For wild horse and burro issues: AGFD and Arizona Department of Public Safety; CDFG, and California State Police.
- For recreation issues and opportunities: AGFD and ADOT; City of Yuma and other local communities.
- For transportation management: AGFD and ADOT; CDFG and California Department of Transportation.
- For cultural resources: Arizona and California SHPOs.
- For air quality: ADEQ and the California Air Resources Board.
- For water resources: ADWR, ADEQ, and California Department of Water Resources.
- For lands, realty, and minerals issues: ADOT.
- For public health and safety issues: ADEQ, Yuma County Sheriff's Department and the City of Yuma Police Department.

5.3.4 TRIBAL GOVERNMENTS

BLM consults with tribes that have an interest in or cultural concerns related to the planning area. Coordination and communication includes letters, phone calls, and meetings. For this plan revision, YFO coordinated and consulted with the Native American tribes and groups listed below.

- Ak-Chin Indian Community
- Chemehuevi Indian Tribe
- Cocopah Indian Tribe
- Colorado River Indian Tribes
- Fort McDowell Yavapai Nation
- Fort Mojave Indian Tribe
- Fort Sill Apache Tribe
- Fort Yuma Quechan Tribe
- Gila River Indian Community
- Havasupai Tribe
- Hia C'ed O'odham

- Hopi Tribe
- Hualapai Tribe
- Kaibab-Paiute Tribe
- Las Vegas Paiute Tribe
- Mescalero Apache Tribe
- Moapa Band of Paiute Indians
- The Navajo Nation
- Pascua Yaqui Tribe
- Salt River Pima-Maricopa Indian Community
- San Carlos Apache Tribe
- San Juan Southern Paiute Tribe
- Tohono O'odham Tribal Nation
- Tonto Apache Tribe
- Viejas Band of Mission Indians
- White Mountain Apache Tribe
- Yavapai-Apache Nation
- Yavapai-Prescott Indian Tribe
- Pueblo of Zuni

5.3.5 PRIVATE LAND OWNERS AND OTHER ENTITIES

The YFO either has now or may pursue partnering relationships with private land owners and other entities such as:

- ROW permit applicants and holders;
- Concessionaires, mining persons and companies, grazing leaseholders;
- NRCS Resource Conservation & Development Councils, National Wildlife Federation, Audubon Society, Sonoran Institute, Yuma Valley Rod and Gun Club, Arizona Wilderness Coalition, The Nature Conservancy, Natural Trails & Waters Coalition, and other non-profit organizations;
- Avocational groups;
- Colleges, universities, and other academic institutions;
- Chambers of Commerce in Yuma, Quartzsite, and Blythe, and the Yuma Convention and Visitors Bureau; and
- Irrigation Districts of Yuma, Yuma Mesa, Imperial, Palo Verde, and Wellton Mohawk, and the Yuma Valley Water Users' Association.

5.4 COOPERATING AGENCIES

Letters were sent in January 2005 to over 75 Federal, State, and Tribal agencies inviting their participation as a cooperating agency. A list of agencies contacted is shown below. Several of these agencies signed MOUs to become cooperating agencies, which are listed in Section 1.6.1 of Chapter 1.

5.4.1 FEDERAL

- Bureau of Indian Affairs–Colorado River Agency, Phoenix Area Office, Yuma Area Office
- Bureau of Mines
- Bureau of Reclamation–Phoenix Area Office; Yuma Area Office; Boulder City, Nevada Regional Office
- Council on Environmental Quality
- Environmental Protection Agency
- Federal Aviation Administration
- Federal Highway Administration
- United States Section, International Boundary and Water Commission
- National Park Service
  - Organ Pipe Cactus National Monument
  - National Trails System
- U.S. Department of Agriculture, Agricultural Research Service, California
- U.S. Department of Agriculture, Animal and Plant Health Inspection Service
- U.S. Department of Agriculture, Lower Colorado River Resource Conservation and Development
- U.S. Department of Agriculture, Natural Resource Conservation Service
- U.S. Department of Defense, Air Force, Luke Air Force Base
- U.S. Department of Defense, Army Corps of Engineers – Los Angeles Regional Office, Phoenix Project Office, Tucson Office
- U.S. Department of Defense, Army, Yuma Proving Ground
- U.S. Department of Defense, Marine Corps Air Station – Yuma
- U.S. Department of Defense, Navy
- U.S. Department of Energy, Office of Environmental Safety and Health
- U.S. Department of Energy, Western Area Power Administration – Arizona State Office, Colorado State Office
- U.S. Department on Homeland Security, Border Patrol – Yuma Office; Southwest Border Alliance – Yuma
- U.S. Department of the Interior, Environmental Policy and Compliance
- U.S. Department of Justice, Drug Enforcement Agency
- U.S. Fish and Wildlife Service
  - Cabeza Prieta National Wildlife Refuge

  - Cibola National Wildlife Refuge
  - Imperial National Wildlife Refuge
  - Kofa National Wildlife Refuge
  - Arizona Ecological Services Field Office
- U.S. Forest Service – Arizona Zone Office
- U.S. Geological Survey, Water Resources Division

5.4.2 STATE

- Arizona Department of Agriculture
- Arizona Department of Commerce
- Arizona Department of Economic Security
- Arizona Department of Environmental Quality – State Office, Air Quality Division, and Yuma Community Liaison
- Arizona Department of Health Services
- Arizona Department of Mines and Mineral Resources
- Arizona Department of Public Safety
- Arizona Department of Transportation
- Arizona Department of Water Resources
- Arizona Game and Fish Department – Yuma and Phoenix offices
- Arizona Geological Survey
- Arizona Governor's Office
- Arizona Office of the Attorney General
- Arizona State Historic Preservation Office
- Arizona State House of Representatives
- Arizona State Land Department
- Arizona State Mine Inspector
- Arizona State Parks
  - State Office
  - Yuma Crossing State Historic Park
  - Yuma Territorial Prison State Historic Park
- California Department of Boating and Safety
- California Department of Fish and Game
- California Department of Food and Agriculture
- California Department of Public Works
- California Department of Toxic Substances
- California Department of Transportation
- California Governor's Office
- California State Historic Preservation Office

- California State Lands Commission
- California State Parks, Picacho State Recreation Area
- Colorado River Commission of Nevada
- Offices of U.S. Senators McCain and Kyl

5.4.3 TRIBAL

- Ak-Chin Indian Community
- Chemehuevi Indian Tribe
- Cocopah Indian Tribe
- Colorado River Indian Tribes
- Fort McDowell Yavapai Nation
- Fort Mojave Indian Tribe
- Fort Sill Apache Tribe
- Fort Yuma Quechan Tribe
- Gila River Indian Community
- Havasupai Tribe
- Hia C'ed O'odham
- Hopi Tribe
- Hualapai Tribe
- Kaibab-Paiute Tribe
- Las Vegas Paiute Tribe
- Mescalero Apache Tribe
- Moapa Band of Paiute Indians
- The Navajo Nation
- Pascua Yaqui Tribe
- Salt River Pima-Maricopa Indian Community
- San Carlos Apache Tribe
- San Juan Southern Paiute Tribe
- Tohono O'odham Tribal Nation
- Tonto Apache Tribe
- Viejas Band of Mission Indians
- White Mountain Apache Tribe
- Yavapai-Apache Nation
- Yavapai-Prescott Indian Tribe
- Pueblo of Zuni

5.4.4 COUNTY

- Imperial County, California
  - Board of Supervisors
  - Department of Planning and Building
  - Agriculture Commission
- La Paz County, Arizona
  - Community Development
  - Health Department
  - Public Works
- Maricopa County, Arizona
  - Board of Supervisors
  - Department of Transportation
  - Flood Control District
  - Health Department
- Mohave County, Arizona – Public Land Use Commission
- Riverside County, California
- Yuma County, Arizona
  - Board of Supervisors
  - Development Services
  - Public Works Department
  - Sheriff's Department

5.4.5 LOCAL

- City of Blythe, California
- City of Kingman, Arizona Parks and Recreation Department
- City of Needles, California
- City of San Luis, Arizona
- City of Somerton, Arizona
- City of Tucson, Arizona
- City of Yuma, Arizona
  - City Council
  - Parks and Recreation Department
  - Public Works Department

5.5 COMMENT ANALYSIS PROCESS

The BLM received more than 430 comment letters (including public comment forms from public meetings, oral testimonies, postal letters, emails, and faxes) from individuals, agencies, organizations, and groups during the public comment period on the DRMP/DEIS. The formal comment period was from December 15, 2006 to March 15, 2007. Comment letters were received from 29 different states, with the majority from Arizona (44%) and California (17%). One international comment letter was received from the Netherlands.

5.5.1 CODING AND SUMMARY OF COMMENTS

Public comment letters resulted in over 1,400 individual comments. To analyze these comments, BLM followed the USDA Forest Service Content Analysis Team (CAT) process for comment analysis. This process has been used to analyze hundreds of thousands of comments over numerous EISs, and BLM believes it to be a defensible process to catalog and address comments.

A database was created and contained a letter log and a scanned copy of each coded letter. The letter log maintained information such as the following: type of response (e.g., received at a public meeting or through a comment letter, received through postal mail or email), respondent information (e.g., from an individual, government, tribe, or interest group), name and address, and number of signatures on the letter.

When a letter was received, the original was date-stamped and numbered, then retained for the Administrative Record. Two photocopies were made: one for the reader's file (i.e., to be used by the public as needed), and one for a working copy. The copy for the reader's file was scanned. The working copy was logged into the letter log, coded with the comment codes, "second read" (see below), entered into the comment database, and then scanned.

The coding process required identification of standalone comments. Three "first readers" read and coded the comment letters. A fourth person was the "second reader" who verified the accuracy and consistency of the coding. The coded comments were then entered into the Access database. The coding included an Action code (which included 210 codes related to a range of actions that the commenter was asking (hypothetical example: "Do not identify Parcel X for disposal,") and a Rationale code, which comprised the expressed reason for the comment (e.g., the land is important desert tortoise habitat).

For the purpose of providing consistent and adequate responses, similar comments were grouped and organized into Public Concerns (e.g., want to protect habitat). Some comments also identified Subconcerns (e.g., want to protect habitat because it is needed for bighorn sheep). Public Concerns and Subconcerns were determined according to the Action and Rational codes assigned during the coding process.

All comments received during the public comment period were reviewed and considered. Comments that presented new data or addressed the adequacy of the document, the alternatives,

or the analysis are responded to in this PRMP/FEIS pursuant to BLM policy. There were also many comments received which requested further clarification in the document. Although not required to be addressed, these comments requesting clarification may have resulted in additional language or revisions throughout the PRMP/FEIS.

Comments expressing personal opinions or with no specific relevance to the adequacy or accuracy of the DRMP/DEIS were considered but may not have been responded to directly. Similarly, comments received after data analysis was completed were considered, but are not addressed in this document.

Although all Public Concerns and Subconcerns are presented in this section, not all comments are included. Rather, the comments presented in this section are samples, intended to give the reader an overview of the Public Concerns and Subconcerns along with BLM's responses. Complete comment letters are on the compact disc published with this PRMP/FEIS. Contact the BLM YFO if you need additional information regarding comment letters and responses.

There are eight broad categories for comments, and within each of those categories comments are organized into Public Concerns and Subconcerns. The main comment categories are listed below in order of the issues identified by the public. This outline was used to organize the comments that are presented in this chapter. Referring to this outline will assist with finding specific comments in Section 5.5.2.

A. PLANNING PROCESS

1. Decision Making Process and Methods
2. Decision Making Philosophy
3. Public Involvement
4. Use of Best Available Science
5. Agency Organization, Funding, and Staffing

B. ALTERNATIVES

1. General Documents
2. Alternatives

C. NATURAL RESOURCES MANAGEMENT

1. General Management
2. Analysis
3. Physical Elements
4. Biological Elements: Wildlife/Animals Management
5. Biological Elements: Vegetation Management
6. Domestic Livestock Management
7. Mining and Mineral Exploration

8. Cultural Resources Management
9. Wild Horse and Burros
10. Visual Resources Management
11. Lands with Wilderness Characteristics
12. Law and Policy Enforcement

D. ACCESS AND TRAVEL MANAGEMENT

1. Transportation System Management
2. Non-System and User-Created Routes
3. Route Analysis

E. RECREATION MANAGEMENT

1. Recreation Management
2. Recreation Opportunity Spectrum
3. Motorized Recreation Management
4. Developed Recreation Facilities
5. Non-Motorized Recreation Management
6. Recreation Permitting
7. User Education and Research
8. Volunteers, Partners

F. LANDS AND REALTY MANAGEMENT

1. Public Land Ownership/Boundaries
2. ROW Corridors
3. Communication Sites and Facilities
4. Land Actions or Tenure
5. Disposals

G. SPECIAL DESIGNATIONS

1. Designations/Management
2. Wilderness
3. Areas of Critical Environmental Concern (ACECs)
4. Back Country Byways

H. SOCIAL AND ECONOMICS

1. Border Related Issues

5.5.2 RESPONSE TO PUBLIC COMMENTS

A. PLANNING PROCESS

1. Decision Making Process and Methods

Public Concern 1: Coordination and Consultation with other Agencies

Subconcern: Federal Agencies

Commenting agency or organization names are shown in parenthesis.

Comment 722 (USIBWC): *Please keep USIBWC informed on the DEIS process, and of any future projects that may occur near the international border.*

Response: BLM will continue to inform State, Federal and local agencies, non-governmental organizations and international interests, including the USIBWC, of the RMP process and projects that may occur near the International Border.

Comment 1174 (Reclamation): *The unique relationship between Reclamation and BLM relative to the shared management of lands within the area addressed by the Department of Interior Departmental Manual (613 DM 1.1) is noted on page 1-4, section 1.2.1. However, clarification is needed to more accurately identify those lands included in 613 DM 1.1. Not all Reclamation withdrawn or acquired lands within the YFO DRMP are part of the 613 DM 1.1 management agreement. Only those lands that constitute a corridor along the lower Colorado River as identified in the Lower Colorado River Land Use Plan of 1964 are jointly managed by Reclamation and BLM for specific purposes as outlined by 613 DM 1.1 and the joint Memorandum of Understanding of July 15, 1991.*

Response: Section 1.2.1, Reclamation Project Lands, was rewritten to more accurately describe the unique relationship between Reclamation and BLM relative to the shared management of lands included in 613 DM 1.1.

Comment 1178 (Reclamation): *Since BLM is a partner in the LCR MSCP, please include language that says BLM will identify opportunities to partner with Reclamation on implementing LCR MSCP projects and, to the maximum extent practicable, give those projects priority.*

Response: Throughout the PRMP/FEIS, BLM references the LCR MSCP within Desired Future Conditions and Management Actions. BLM has agreed to consider restoration projects to restore ecosystems at risk, to provide for endangered species and other BLM priority wildlife, and encourage biodiversity through vegetation enhancement. BLM would partner with Reclamation to further LCR MSCP goals where high potential exists to further these objectives. BLM restoration projects may also include passive recreation such as wildlife viewing and hiking.

Comment 1041 (YVRGC): *It has been announced to members of the entire Yuma Proving Ground (YPG) workforce that areas within the Yuma Field Office planning area are considered for withdrawal from Public Lands for military purposes by YPG...We respectfully submit that this action, and all impacts associated with this action, should be included within any planning document that the BLM plans to execute within the immediate future.*

Response: BLM has not received any formal applications from YPG for land authorizations (i.e. military withdrawal, etc.). Until a formal application has been submitted to BLM, the action and associated impacts cannot be analyzed in the RMP. Military presence in the planning area was analyzed in the Cumulative Impacts section of Chapter 4.

Subconcern: State, County, and Municipal Governments

Comment 908: *[Quotation from attachment] Letter from Governor Napolitano dated March 15, 2006.*

"I can certainly appreciate the complex issues facing BLM with regard to management of public lands in Arizona, and the need to accommodate a wide range of public land users. However, the implementation of wilderness characteristic allocations, as currently described in these draft plans, is unclear in regard to the ability of the public to access or enjoy their existing public lands and will likely result in unnecessary impacts to the state's statutory authority to manage fish and wildlife resources on BLM lands. I believe any uses and restrictions that result from such proposed allocations should be clearly identified in each Plan. I would appreciate your thorough evaluation of the ongoing application and use of these allocations to ensure consistency with the multiple use concepts identified in the BLM mission."

Response: Management Actions proposed in Section 2.14 of this PRMP/FEIS outline how the YFO would maintain lands with wilderness characteristics. None of these proposals would preclude the State of Arizona's statutory authority to manage fish and wildlife resources on BLM-administered lands. The YFO has fulfilled its mandate to use the "best available information" to inventory routes on all BLM-administered lands within the planning area, including within lands identified to maintain wilderness characteristics. This PRMP/FEIS does not propose to restrict motorized access on any inventoried routes within lands identified to maintain wilderness characteristics. Inventoried routes within lands identified to maintain wilderness characteristics would be individually evaluated during future Travel Management Plans and designated as open, closed, or limited to motorized use.

Comment 1368 (AGFD): *Page 2-94 to 2-97, Table 2-20 through Table 2-24 Management Actions, RMP Statement-None: The Department recommends adding a bullet that states: Coordinate with AGFD on OHV management and enforcement.*

Response: BLM recognizes the importance of proper coordination with AGFD regarding OHV management and enforcement. This particular comment has been addressed within Chapter 5, Section 5.3 C, State and Local Governments. A statewide MOU is being prepared and will provide context to better enable both agencies to work in partnership and to make decisions in a consistent manner across the State. The guidelines established in this MOU apply to implementation of this RMP.

Comment 1332 (AGFD): *BLM is proposing to extend and designate a national recreation trail across the MLWA (Mittry Lake Wildlife Area). The Department requests that YFO continue to work cooperatively with us on any proposed trail extension and receive a letter of approval prior to beginning any construction or designation.*

Response: The Proposed Plan removed the extension of the National Recreation Trail at Betty's Kitchen as a result of public comment on the DRMP/DEIS. BLM would continue to coordinate with AGFD on all site-specific actions at Mittry Lake.

Comment 1337 (AGFD): *The Department looks forward to continuing to collaborate with the YFO in refining and implementing the RMP. To that end, we believe it would be beneficial to meet and discuss our concerns.*

Response: BLM will continue to collaborate and consult with the AGFD as will be stated under the statewide MOU (under revision) (see PRMP/FEIS, Section 5.3 C, Interrelationships). BLM will continue to meet on a regular basis to discuss AGFD's comments to the DRMP/DEIS and PRMP/FEIS and work to resolve any issues in order to continue the good working relationship already established between the agencies.

Comment 985 (ADWR): *In addition to our statutorily defined role under Title 45 of the Arizona Revised Statutes, reference in the subject DEIS, ADWR is a permittee under the Lower Colorado River Multi-Species Conservation Program and we encourage close coordination of BLM activities with that program.*

Response: Clarification of the LCR MSCP role in the YFO RMP was added to Section 5.3 C, Interrelationships. The LCR MSCP is a coordinated, comprehensive, long-term multi-agency effort to conserve and work toward the recovery of endangered species, and to protect and maintain wildlife habitat on the lower Colorado River. The BLM has been involved and will continue to strive to achieve LCR MSCP goals and objectives that are within the scope of our agency's mission.

Comment 18 (ADEQ): *The purpose of this letter is to request estimated PM_{10} emissions data for the two open OHV management areas in alternatives B, C, and E proposed in the draft RMP/EIS.*

Response: BLM responded to a request from ADEQ for PM_{10} emissions data for two proposed Open OHV Management Areas within the YFO planning area in a letter dated February 23, 2007. The letter stated "In reviewing the Natural Events Action Plan (NEAP), and data used in the development of the plan, ATV use was part of the contributing factors of PM_{10} concentrations. In the Maintenance Plan, they estimated that ATVs contributed approximately 3.6 tons a year, and anticipate that by 2016, ATVs will contribute 5.9 tons per year. During the time that ADEQ was developing these plans to respond to the EPA, these areas have essentially been used as open areas. Some increased use can be anticipated; however, it will depend more on winter visitor numbers." Currently, there are no air quality monitoring stations in the vicinity of the proposed Open OHV Management Areas. Monitoring stations are located in the Yuma valley and the City of Yuma. The proposed Blaisdell Open OHV Management Area, which is located within a PM_{10} non-attainment area, and the proposed Martinez Lake Open OHV Management

Area were removed from the Proposed Plan.

Comment 1459 (YPG): *On page 2-42 and 2-52, support reintroductions (particularly Sonoran pronghorn) in collaboration with AGFD and USFWS. I recommend including other Agencies (i.e., YPG) in the collaboration as such reintroductions have the potential to significantly impact YPG mission as animals spread from reintroduction sites in the Palomas Plain onto YPG.*

Response: BLM acknowledges the statement and revised the PRMP/FEIS to include: "and other agencies" in Section 2.7, Management Action #4 and 2.7.2 D Administrative Action #2.

Comment 993 (ADWR): *P. 2-122, Management Actions, 4th bullet. Arizona Department of Water Resources is certainly interested in water quality but our sister agency, the Arizona Department of Environmental Quality has the lead. Water use should be discussed with ADWR.*

Response: Text in the PRMP/FEIS, Section 2.17.2, Management Action #4 was changed to reference ADEQ instead of ADWR.

Public Concern 2: Coordination and Consultation with Tribes

Comment 764 (BIA): *Please consider the federal government's overall trust responsibility toward Indian Tribes as espoused in various laws, regulations, Executive Orders, Secretarial Orders, etc.*

Response: BLM is aware of its responsibility to comply with all Federal laws, regulations, and orders pertaining to Native American coordination and consultation.

Comment 767 (BIA): *It does not appear that the Hia C'ed O'odham were consulted during the DRMP/DEIS process, even though the "Sand Papago" have ties to the planning area as stated on page 3-57. Although the Hia C'ed O'odham are scattered, two main groups are usually consulted -- one that resides on lands of the Tohono O'odham Nation and one from Glendale, Arizona. The Hia C'ed O'odham may be able to provide important relevant data for analysis in the DRMP/EIS and we recommend that they be consulted.*

Response: Information on the YFO RMP revision has been sent to the Hia C'ed O'odham office at the Tohono O'odham Nation throughout the revision process, but were mistakenly left off of the list of Native American tribes and groups consulted. This mistake has been corrected in the PRMP/FEIS.

Comment 1428 (Quechan Tribe): *It is the Tribe's understanding that this Resource Management Plan does not authorize any site-specific uses of land, but simply provides general management parameters for BLM lands over the coming years. If this understanding is incorrect, please inform us as soon as possible and provide additional time to supplement our comments.*

Response: Site-specific ground-disturbing actions discussed in the land use plan (e.g., community pits, OHV open areas, communications sites, etc.) would need additional compliance with NEPA and NHPA before implementation. Allocations that are not ground disturbing would not require additional NEPA and NHPA analysis and would be authorized by this RMP.

Comment 1429 (Quechan Tribe): *It is also the Tribe's understanding that any future site-specific authorizations relating to BLM lands must undergo compliance with NEPA, NHPA, and other federal environmental and cultural resources protection laws prior to approval by BLM. Thus, the Tribe expects that BLM will notify the Tribe of all pending NEPA and or NHPA Section 106 processes that affect cultural resources of significance to the Tribe. Where a proposed BLM action could affect tribal cultural resources, the BLM must include the Tribe as a consulting party pursuant to NHPA and the Advisory Council regulations.*

Response: YFO will continue to fulfill its obligations under NEPA, the NHPA, and other Federal laws and regulations for tribal consultation. YFO plans to continue to notify the Quechan Tribe of any proposed action that has a potential to affect cultural resources of significance to the Tribe.

Comment 1426 (Quechan Tribe): *The Quechan Tribe requests that the BLM meet with the Tribe in formal government-to-government consultations to discuss its Draft RMP. Such consultations are not only required due to the BLM's role as trustee to the Tribe, but also due to the Tribe's status as a Cooperating Agency for purposes of development of the DRMP. The Tribe must also be consulted to determine whether identified cultural resource sites are properly eligible for protection as 'Traditional Cultural Properties.' BLM should contact the Tribe as soon as possible to schedule a government-to-government meeting.*

The DRMP also identifies numerous aspects of the plan on which the Tribe must be consulted. For example, the DRMP states that BLM must 'continue to consult with Tribes to identify places of traditional importance.' DRMP, at p.2-110. The DRMP also states that BLM will 'inventory, document, monitor, and protect cultural resources of importance' within ACEC areas. DRMP, at p. 2-15. The Quechan Tribe requests ongoing consultation on these issues. Likewise, the Tribe must be consulted on the development of any maps that depict cultural resources, education materials relating to cultural resources, as well as interpretive trails relating to cultural resources of significance to the Tribe.

Response: BLM greatly appreciates the Quechan Tribe's input into the management of cultural resources on public lands and will continue to meet our consultation obligations with the Quechan Tribe. For these consultations, BLM follows the guidance provided by NEPA, NHPA, BLM Manual Series 8100, and other applicable laws, regulations, and executive orders.

Since the beginning of this RMP revision process in 2004, the YFO has met several times with members of the Quechan Cultural Committee to discuss the plan alternatives and specific proposals in the RMP revision. We would welcome the opportunity to meet with the Quechan Tribal Council to discuss the PRMP/FEIS.

Public Concern 3: Consistency with Other Actions/Agencies

Subconcern: FLPMA

Comment 1331 (AGFD): *YFO is proposing to allocate the MLWA (Mittry Lake Wildlife Area) as a Coordinated Management Area, an allocation authorized under the Federal Land Policy Management Act (FLPMA). The Department believes it is inappropriate to propose to manage lands under FLPMA authorities that are currently managed by a state wildlife agency under FWCA authorities.*

Response: In response to this comment, YFO made changes to the document to clarify that the Mittry Lake Wildlife Area is not an allocation under FLPMA, or the Land Use Planning Handbook. Section 2.4.3 of this PRMP/FEIS on Coordinated Management Areas recognizes Mittry Lake Wildlife Area is leased public land managed under a cooperative agreement between the AGFD, Reclamation and BLM. The plan points out that the Mittry Lake Wildlife Area is set aside under the provisions of the lease under a different law than FLPMA, is co-managed, and presents proposed management actions or prescriptions applied to those areas. BLM's activities are authorized under FLPMA. BLM currently manages camping, maintains recreation facilities such as restrooms and trash collection, and coordinates other activities such as completing NEPA documentation for facilities in conformance with the RMP.

The purpose of the area stated in the lease is "establishing a public shooting area, waterfowl resting ground, and for improving conditions for the propagation of fish." According to the Mittry Lake Wildlife Area Management Plan, "ultimate responsibility for these lands lies with the BLM, which is assigned full responsibility for the implementation of the Lower Colorado Land Use Plan, including lands used for recreation or wildlife activities."

Subconcern: State, County, and Municipal Governments

Comment 1323 (AGFD): *The Department is concerned several resources and/or uses may inherently conflict, and the proactive and timely management of fish and wildlife could suffer as a consequence. Without national or state-wide guidance on wildlife management, wildlife may be prioritized, considered, or evaluated at a lower level than values that have national guidance such as wilderness management, visual resource management, etc. The Department and the BLM Arizona State Office have decided to address this issue through the revision of the Department's and BLM's master statewide Memorandum of Understanding (MOU). … We expect it may take time to finalize revisions and obtain necessary signatures; therefore, we request language be added to the RMP that reinforces our mutual commitment to cooperate and collaborate in the proactive management of fish and wildlife and their habitats, for all management prescriptions, designations, and allocations. We believe this language should read: "Activities conducted by the Arizona Game and Fish Department to meet Trust Responsibilities to manage wildlife are recognized by BLM as consistent with decisions proposed in the RMP. The Arizona Game and Fish Department's ability to manage wildlife on lands administered by BLM in Arizona will not be diminished or precluded during the life of the plan, based solely on singular or overlapping allocations, designations, and/or management prescriptions (such as those to manage for wilderness characteristics, visual resources, or primitive recreation). All implementation level plans and site-specific projects will continue to be evaluated through*

appropriate partnerships and through federal and state regulations. This RMP will reflect and support the spirit and intent of the statewide Memorandum of Understanding between BLM and AGFD."

Response: Chapter 5, Section 5.3 C, discusses the management coordination between the BLM and AGFD. YFO recognizes AGFD's trust responsibilities to manage wildlife, and will continue to provide for administrative and wildlife management access for AGFD where appropriate. Once finalized, YFO will support the statewide MOU between BLM and AGFD, and will continue to coordinate on site-specific implementation level decisions. Furthermore, YFO greatly appreciates the cooperation and recommendations given by AGFD throughout this RMP revision.

Subconcern: Specific Animal Species

Comment 1461: *On page 2-68, regarding desert tortoise. I see no reference to the in-progress Conservation Agreement being developed by the AIDTT. The best contact regarding the status of the agreement would be Ted Cordery (BLM Phoenix). The agreement is intended to augment the 1996 AIDTT Management Plan and should be considered.*

Response: Section 2.8.3 E, Management Action #1 of the PRMP/FEISreferences the conservation agreement by proposing to, "Adopt and implement the conservation strategy addressed in the Management Plan for the Sonoran Population of the Desert Tortoise in Arizona (Arizona Interagency Desert Tortoise Team 1996)."

Subconcern: Roads and Trails, Transportation System

Comment 1176 (Reclamation): *As your travel planning process develops, all Federal lands administered and managed by Reclamation need to be accurately reflected and addressed. A number of Reclamation project facilities are considered to be high security areas with no public access permitted while in other areas some public access may be considered appropriate. Reclamation maintenance routes such as levee roads are generally not considered public access routes. Any proposed change to that designation would need to be considered on a case by case basis.*

Response: Future Travel Management Plans covering the proposed Greater Yuma and Ehrenberg-Cibola Travel Management Areas would evaluate and designate routes across Reclamation lands. The development of these plans will require close coordination between BLM and Reclamation, as mandated by Departmental Manual 613. Within the Ehrenberg-Cibola Travel Management Area, Reclamation should be aware that the eastern levee road between Interstate 10 and the Cibola NWR provides essential public access to two developed BLM recreation sites and numerous miles of designated OHV trails.

Public Concern 4: Influences on Decision Making

Comment 900: *In regard to assurances that Wildlife Management will continue tomorrow as it does today by the Arizona Game and Fish Department (Department) on all lands managed by BLM in Arizona, BLM has demonstrated little faith to that regard...I continue to believe wildlife management must be a priority over primitive recreation and or managing for wilderness characteristics and this must be so noted crystal clear in writing in any RMP. Example: "All land use allocations prescribed in any RMP to manage for wilderness characteristics or to provide for primitive recreation shall not negatively impact the Arizona Game and Fish Department's trust responsibilities for management of wildlife, or prohibit current and/or future proposed wildlife management activities on lands administered by BLM in Arizona."*

Comment 1032 (YVRGC): *The most important comment that we can make regarding this entire plan is the general observed notion of providing solitude, naturalness, and primitive recreation as a priority use over Wildlife Management activities and certain forms of public recreation... The Club feels very strongly that the management of wildlife and wildlife habitat by agencies, Non Governmental Organizations, and Volunteers should take priority in most all cases, over achieving desired conditions for primitive recreation, naturalness, or solitude.*

Comment 431: *[Wildlife management] should take priority over recreation and Wilderness Characteristics Management.*

Response: BLM seeks balance in all uses according to our mission statement, “It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of the present and future generations.” In lands identified to maintain wilderness character, there will be a management emphasis to maintain or conserve current scenic attributes and natural conditions, and to ensure opportunities for solitude and primitive and unconfined recreation. Maintenance of solitude and primitive recreation opportunities would not be paramount or above all other land uses. Impacts on solitude and primitive recreation opportunities from proposed land use activities would be carefully considered and, wherever possible, avoided or mitigated. BLM can deny, modify or mitigate any proposed land use that impacts important resources, whether those subject resources are range, recreation, water, wildlife habitat, scenery, cultural resources or travel management. Primitive recreation experiences have the same standing as any other resource. The management emphasis for areas managed for wilderness character would be to maintain such characteristics.

2. Decision Making Philosophy

Comment 1289: *I believe it is your responsibility to first make decisions based on our input - not the cattlemen or any other group or corporation.*

Response: BLM uses an ongoing planning process to ensure that land use plan decisions remain consistent with applicable laws, regulations, orders, and policies. This decision-making process is conducted in accordance with the BLM mission statement and involves public participation. During public participation, BLM considers all comments, weighed equally, whether they are from groups, individuals, corporations, or agencies.

Public Concern 1: Multiple Use Management Emphasis

Comment 433: *BLM should manage for conservation not preservation, the difference being conservation allows for wise use, while preservation allows no use.*

Response: The planning area is managed in accordance with the intent of FLPMA for multiple use and sustained yield. This is demonstrated by the multiple resource program management prescriptions in this PRMP/FEIS.

Public Concern 2: Adaptive Management Emphasis

Comment 1149 (Center for Biological Diversity et al.): *The DRMP/DEIS states that the BLM will use "adaptive management" to ensure the directives of this plan are being met. (Section 2.22.2) However, given the governance that this plan entails, and the time frame that is being discussed, it is vital that more details and structure regarding management parameters are provided. NEPA requires that the agency identify management in order to predict consequences and cumulative impacts, and yet the DRMP/DEIS includes only a general description of the method. For example, in section 2.22.4 (Monitoring and Evaluation) monitoring plans are described, but no overall strategic plan is provided or even hinted at – no timetables or indication of monitoring frequencies are provided, no description as to when monitoring data are to be collated and analyzed or by whom, and no clear direction how managers are expected to employ the findings is presented. Simply informing the reader what adaptive management is or the stages of monitoring in land use planning does not get at the heart of how the plan is actually going to function.*

Response: Section 2.22.2 has been revised, including the following information to clarify how the BLM uses adaptive management to achieve desired resource objectives. BLM land use planning implements adaptive management through a four-phase process. The first phase is planning. When planning is finished, the RMP is implemented. Implementation of land use allocations, designations, and allowable-uses occur as soon as a Record of Decision is signed, unless other appropriate NEPA analysis is required. Management Actions would occur throughout the life of the plan. Periodically the plans are evaluated (usually every five years) to determine if planning decisions are accurate, being implemented, or need to be changed based on current information. The Desired Future Conditions listed under each resource program are decisions that provide the parameters by which the BLM manages the lands and resources. The BLM uses continual monitoring of resource conditions to determine if the Management Actions being implemented are achieving those Desired Future Conditions. Adaptive management is applied in cases where the existing management is clearly not meeting those desired conditions. In such cases, adaptive management may include revising BMPs, or possibly revising an entire RMP as we are doing here. Periodic RMP amendments are expected to occur as either resource conditions, resource values, or goals and objectives change. LUP evaluations typically occur every five years, which are a complete analysis of existing conditions, anticipated issues, and the current decisions providing for the management of resources. Based on this interdisciplinary evaluation, the authorizing officer determines whether any, some, or all of those decisions are accurate.

Subconcern: Climate, Weather, and Atmospheric Processes

Comment 1087 (Center for Biological Diversity et al.): *The draft RMP states that "Due to the ephemeral nature of the annual grass and forb production and the otherwise low productivity of the upland sites of the Sonoran Desert Ecoregion, it is difficult to make long-term use plans that adapt to the resource in any given year." The RMP and the preferred alternative should also consider the long-term severe drought that the region is in (http://www.drought.unl.edu/dm/monitor.html). The draft RMP states that the average annual precipitation in the planning area is 3.5 inches, leaving one to imagine that drought conditions in this area must mean very scarce and unproductive rainfall events. See draft RMP page S-5.*

Response: BLM acknowledges the low productivity of this region due to low precipitation levels. The BLM decisions consider productivity levels and common drought conditions as part of the decision making process. Drought affects wildlife, OHV use, rehabilitation efforts, as well as other programs. Three and a half inches of annual precipitation is an average, and the amount of annual precipitation within the planning area varies. Over the last 10 years, annual precipitation amounts have ranged from a low of less than an inch to over five inches. Approximately 60 percent of annual rainfall is anticipated during the winter months, with the remainder occurring in the late summer. The grazing and wild horse and burro programs are based on the prevalent drought/dry conditions for carrying capacities: management decisions are not based on infrequent years of higher than normal precipitation.

3. Public Involvement

Public Concern 1: Adequacy and Availability of Information

Subconcern: General

Comment 245: *They use the term "limit of acceptable use" and I'm confused on that because it's not defined in the book. That needs to be included in the glossary. What is a limit of acceptable use? It's used throughout the RMP and it needs to be included. As well as in the glossary you will not find the term "wilderness" and you will not find the term "wilderness character," and I believe that they're not included because they are the same thing, and if you were to write the definition, you're writing the same definition...You will not find solitude or primitive recreation in the, in the glossary. You'll find other things, ACEC, byways. Other things are defined, but those ones I feel have been intentionally left out because there's just such a fine line.*

Response: The PRMP/FEIS has been revised to add the following terms in the glossary: Wilderness, wilderness characteristics, naturalness, solitude, primitive & unconfined recreation. The term "limits of acceptable change" refers to the amount of human-caused change to biological, physical, or social components which are tolerable within an acceptable level without degrading the recreational experience. The term Wilderness when used in the context of a congressional designation refers to lands that have been designated as a part of the National Wilderness Preservation System as provided by the Wilderness Act of 1964.

Subconcern: Mapping and GIS

Comment 328: *The maps that were provided at the Quartzsite meeting and the soft copies on the CD are very difficult to use. They show no geographical information, and no Lat. and Long. information.*

Response: The route inventory and designation process is ongoing. BLM will provide more accurate maps with geographical information during the future route evaluation process.

Comment 418: *Unit 41 -- proposed changes without current map, we need an accurate map.*

Response: BLM will accept any form of map the public submits to us to include in the route inventory. The map of Unit 41 is accurate for inventory purposes and shows all major roads and washes as reference points.

Comment 1386: *Do you have a link for the maps related to the RMP?*

Response: All maps included in the DRMP/DEIS and PRMP/FEIS were/are available on the CDs of the documents and on the BLM Arizona website.

Comment 863: *During the planning process it was brought to my attention that there were errors on behalf of the BLM with the inventoried route maps. The maps did not include all previously inventoried routes that BLM had in their records. BLM should not have continued with the RMP public process when the information the public had been provided was not all-inclusive. New maps with all of the inventoried routes should have been printed and distributed.*

Response: The primary purpose of releasing a draft version of the RMP was to provide opportunities for public feedback in order to make any necessary improvements to the PRMP/FEIS. BLM is tasked with using the "best available information" when developing policies, maps, etc. In response to several public comments, the YFO completed an extensive update of the route inventory maps for inclusion into the PRMP/FEIS. The route inventory and designation process is ongoing. BLM will provide more accurate maps with geographical information during the route evaluation process. All YFO routes will be evaluated through the development of Travel Management Plans that are to be completed within five years of the ROD/approved plan.

Public Concern 2: Public Meetings and Comments

Comment 664: *I oppose the Draft Resource Plan for Arizona.*

Comment 267: *Please rethink your options.*

Response: As part of the planning process, BLM seeks public input through scoping and the 90-day public comment period after the release of the DRMP/DEIS. After the public comment period, BLM analyzes comments which provide valuable information to consider in the revision of the DRMP/DEIS. Analysis of public comments ensures that BLM will re-evaluate proposals with public input, and in some instances the Proposed Plan changed. BLM appreciates public

input during the planning process.

Comment 250: *I'd like to have confidence that we're going to get notified of future meetings. I don't know how people found out about this meeting. It sure didn't seem to have a lot of information. We heard about it from a lady in Las Cruces, New Mexico, who's involved in this. So that would be a suggestion I would say is make sure people who wrote their names down tonight get postcards, newspaper articles.*

Response: Public meeting notices have been and will continue to be sent to public mailing lists, flyers are posted in local cities and towns at common gathering places, and public information is posted on the internet. At all public meetings for the RMP, BLM provided forms to fill out if you wished to be added to the mailing list.

Comment 762: *Should the BLM have an open meeting for public comments...I request that a national conference call be organized so I may participate in Tucson...I know of lots of people interested in the future of the wild horses and burros in Arizona...Another option is to have a virtual meeting using computers.*

Response: BLM will consider the option of a national conference call or a virtual meeting in the future as part of the public participation process. BLM currently uses the Federal Register and the BLM Arizona website to announce public meetings.

Comment 1291: *Would you please respond to our letter to you?*

Response: Public comments were logged into a public comment database and each comment received a response from BLM.

Comment 261: *I have several questions about the OHV designation, how that went. And if those were answered then I might be able to address specific comments back to it but without that information, and only getting it after you close the public comment, I'm either going to have to pen something, which will be very difficult for you to read or come to another meeting some place and stand up and give it. So, my hope would be to comment the way you handled this is either have a break to allow people to rummage and ask you some questions or to have a specific short Q and A period so that then you might get some more input.*

Response: BLM YFO staff was available after the formal comment session at the public meetings to answer questions from the public. BLM YFO staff were also available to discuss aspects of the plan or answer any questions from the public during the 90 day comment period.

Comment 417: *Disenchanted with meeting format, because BLM will not respond to questions. Is it because BLM is trying to hide something?*

Response: The purpose of the meetings was to provide opportunities for participation in the land use planning process as required by Federal Regulations. The BLM would not make decisions based on the information gathered at one public meeting. The sum of all the information gathered must be considered before final decisions can be formulated within provisions of BLM multiple use mandates. Please refer to Chapter 5 of the PRMP/FEIS, which describes in detail the numerous public workshops held throughout the planning process by BLM to discuss the

alternatives and the DRMP/DEIS. The public meeting format was designed to obtain public comment on the DRMP/DEIS. BLM YFO staff was available at the meeting to discuss the draft after the formal comment session.

Comment 268 (Public Employees for Environmental Responsibility): *Thanks for having a planning session in Tucson, and please have more as the process evolves.*

Response: YFO will consider holding additional public meetings in Tucson for future land use planning efforts.

Comment 432: *The scheduling conflict between the Yuma public meeting and the YVRGC [Yuma Valley Rod and Gun Club] monthly meeting created a perception of intentional wrongdoing. Could have switched meetings.*

Response: Chapter 5 of the PRMP/FEIS describes the consultation and coordination activities. YVRGC is on the mailing list and received notices and invitations for all scoping meetings, alternative formulation workshops, draft alternative presentation workshops, and DRMP/DEIS public meetings. Several YVRGC members were in attendance at these meetings. BLM cannot plan public meetings to accommodate all special interest groups. Announcements for public meetings were sent well in advance of meeting dates so that members of the public and special interest groups who wished to attend a BLM public meeting could plan accordingly. BLM appreciates and solicits input from all interested stakeholders, including the YVRGC, who has had a high level of involvement throughout the planning process.

Public Concern 3: Collaboration

Comment 237 (Sacred Sites Protection Council): *We would like to get a copy of the analysis process. Is it basically numerical or does it involve cultural and tradition analysis from a different perspective. Who will be doing the analysis? How can we contact the persons doing the analysis and can we participate?*

Response: The public participation process is described in Chapter 5, Section 5.2.1. Also refer to the steps in the planning process identified in Chapter 1, Section 1.3, and depicted in Figure 1-1. The RMP impact analysis process is not numerically based. It is an interdisciplinary process that involves BLM staff specialists, other Federal, State, and local agencies, interested members of the public, and input from Native American tribes. An analysis of the anticipated impacts from implementing each of the five PRMP/FEIS alternatives is included in Chapter 4.

Public Concern 4: Adequacy of Comment Period

Comment 844: *The length of the RMP is so massive that it places an undue burden on the public who are trying to provide feedback. The amount of time the public is given to digest this enormous document is miniscule as compared to the amount of time it took the YFO to complete the draft.*

Response: The 90-day public comment period is established by Federal Regulations (43

CFR1610.2(e)) and cannot be changed. The public and interested parties were given notification equally, and all comments have been received and given equal consideration for Federal land management planning. The PRMP/FEIS will be available for a 30-day public protest period after publication. As BLM develops alternative scenarios for Travel Management Plans, the public will be invited to participate and review each of the plans as they are developed.

4. Use of Best Available Science

Public Concern 1: Adequacy of Analysis

Subconcern: NEPA Analysis

Comment 1427 (Quechan Tribe): *Conclusory statement regarding cumulative impacts do not satisfy NEPA requirements. See Klamath Siskiyou Wildlands Center v. Bureau of Land Management, 387 F.3d 989 (9th Cir. 2004). For example, the discussion of cumulative air quality impacts fails to discuss proposed industrial developments including an oil refinery and ethanol plant on or adjacent to lands currently owned by the Bureau of Reclamation along Interstate 8 east of Yuma. These projects present significant cumulative air quality impacts. In addition, the discussion of cumulative water resource impacts fails to discuss numerous ongoing projects by the Bureau of Reclamation including development of the 'Drop 2' reservoir, which could result in significant adverse impacts to water quality and riparian habitat in and around the Fort Yuma Reservation. The discussion of cumulative cultural resources impacts also fails to acknowledge the United States' current proposal to transfer public lands out of federal ownership, thus removing the protections to cultural resources. For example, the Bureau of Reclamation's currently proposing to transfer approximately 50,000 acres of lands rich in cultural resources to private ownership. These impacts must be considered and evaluated in the context of BLM's resource management plan.*

Response: The entire cumulative effects section has been revised to address your concerns as well as other past, present and foreseeable future actions that were appropriate to include in the analysis of impacts.

Comment 1199 (Arizona Desert Bighorn Sheep Society): *From our review of the document and the number of potential conflicts discovered it is apparent that much of our concern can be attributed to a lack of clear implementation level guidance as to how these new land use allocations and ROS settings are to be managed. There appears to be agency direction to do the things but little to no guidance on how to do it. Without clearer formal direction or established policy there is an obvious disconnect in the ability of the DRMP/DEIS to satisfactorily answer specific questions regarding allowable uses and management action prescriptions or to adequately evaluate a very wide array of associated impacts. Currently one of the new formal policies in place is for Visual Resource Management (VRM) but even it presents unanswerable questions. Formal guidance for the host of other land use allocations and setting does not appear to exist, as they are not clearly defined or referenced in the document nor provided in the appendices. Due to the absence of this necessary guidance or policy we feel that much of the impact analysis is incomplete and invalid.*

Response: The BLM YFO is required to develop RMPs in conformance with the BLM's *Land Use Planning Handbook* (H-1601). Additional RMP-level policies required for BLM field offices are outlined in IM AZ-2005-007, State Director Guidance for Arizona Land Use Planning Efforts. FLPMA of 1976, as amended requires the Secretary of the Interior to manage the public lands through the development and implementation of land use plans such as the one under development here. The Secretary and the BLM are also bound by the requirements of NEPA (42 USC 4321 et seq.), the CEQ regulations at 40 CFR 1500-1508, as well as other Federal laws and regulations.

FLPMA directs the Secretary to promulgate rules and regulations to carry out FLPMA's purposes. The regulations relating to the planning process can be found at 43 CFR 1600. In addition, the BLM, charged by the Secretary with management of the public lands, has developed guidance not only as to the planning process, but as to how plans are to be implemented. BLM's Land Use Planning Handbook H-1601, and the BLM Manual 8320 – Planning for Recreation Resources, are two examples of this guidance, along with many other Manuals, Handbooks, and Instruction Memoranda which guide the BLM's implementing actions, in program areas such as recreation, grazing, habitat protection, etc. The BLM Manual 8320, released in 1981, outlined the Recreation Opportunity Spectrum (ROS) system for land use planning, and directed its use. Further, BLM has utilized the VRM System for land use planning purposes since 1984, upon release of BLM Manual 8400-Visual Resource Management. In general, BLM's Manuals, Handbooks, and Instruction Memoranda may be found on the BLM website.

Comments identifying specific issues with respect to national or State policies are outside the scope of this PRMP/FEIS and should be directed to the BLM Headquarters in Washington, D.C., or the BLM Arizona State Office in Phoenix, accordingly.

Subconcern: Roads and Trails, Transportation System

Comment 247: *As the travel management networks go, in the 1987 RMP it stated that vehicles could drive in dry wash beds. And now they're not including that in the RMP, and you have to literally drive, draw every wash bed on there. I want to know why that's not included. Show me some scientific proof or evidence that says so much harm has been done that we cannot fix because vehicles have driven in wash beds. Show me, give me the reason why we cannot continue to drive in, in wash beds and that cannot stay included in the plan.*

Comment 856: *Under travel management, the No Action Alternative, as described on page S-11 should be the preferred alternative. It includes necessary language regarding the use of drivable washes.*

Response: The PRMP/FEIS route inventory identified on TMA Maps 1through 5 has added numerous drivable desert washes that were not included in the DRMP/DEIS route inventory maps. During the development of subsequent Travel Management Plans, the public will be provided with additional opportunities to identify additional roads, trails, and drivable desert washes that still do not appear on the PRMP/FEIS route inventory maps and should be considered for designation. Section 4.4 of the PRMP/FEIS identifies several impacts to wildlife

from OHV travel, including habitat disturbance and degradation. Because washes provide xeroriparian habitat, which is critical to many resident desert and migratory wildlife species for forage and cover (AGFD 2006a), motorized travel within washes does negatively impact wildlife.

5. Agency Organization, Funding, and Staffing

Public Concern 1: Funding

Comment 1170 (EPA): *EPA recommends that the BLM and Bureau of Reclamation provide the funds necessary to implement the CMA, including funds for stakeholder meetings, development of the Memorandum of Understanding (MOU) and management plan, and implementation. A commitment to funding these activities should be made in the FEIS and the Record of Decision.*

Response: The proposed Limitrophe CMA is intended to pool resources and participation from all stakeholders.

Public Concern 2: Fees

Subconcern: Specific Animal Species

Comment 196: *I would like to be able to adopt the wild burros at a more reasonable price so I can give them a better home.*

Response: Wild horses and burros can be adopted from the BLM at $125 per animal. This price is set in accordance with Federal Regulation 43 CFR 4750.4-2(a), Protection, Management, and Control of Wild Free-Roaming Horses and Burros.

Public Concern 3: Staffing

Subconcern: Cultural Resources

Comment 235: *We need better protection, we don't have enough rangers...There should be some money for that, for another rangers.*

Response: Monitoring public lands for any type of illegal activities, including vandalism and looting of cultural resources, as well as damage from unauthorized OHV use, is an ongoing and challenging task. BLM shares this responsibility with other land managers as well as State, county, and local agencies. Due to the limited staff resources, large and remote areas to monitor, and variety of criminal activity, BLM must rely on the public's assistance and volunteers such as the Arizona Site Steward Program to report illegal activity and degradation on public lands.

B. ALTERNATIVES

1. General Documents

Public Concern 1: Technical and Editorial

Comment 1358 (AGFD): *Page 2-52, 2.7.2 E, RMP Statement- This proposed WHA includes areas identified by CDFG…: Changed to: This proposed WHA includes areas identified by AGFD…*

Response: The PRMP/FEIS was corrected to read: "This proposed WHA (Wildlife Movement Corridors WHA) includes areas identified by AGFD and the Arizona Wildlife Linkages Group as being used by wildlife to move between habitats."

Comment 1349 (AGFD): *Page 2-37, 2.5.6, 5th bullet, RMP Statement- …show the localities currently closed…: We recommend changing to:…show the localities closed…*

Response: The document was revised to state: "show the localities closed to firewood collection by alternative" in Section 2.5.6.

Comment 1352 (AGFD): *Page 2-43, 2.7 Management Actions, 9th bullet, RMP Statement- restore, or enhance wildlife waters…: The Department requests this be changed to: construct, maintain, or redevelop wildlife waters…*

Response: YFO added the word "redevelop" to the Management Action.

Comment 1177 (Reclamation): *The last two rows of Table 3-2, Landownership within Planning Area (acres), on Page 3-4, appear to be either mislabeled or in error. The row titled Error Margin is the total for each column while the row entitled Total is the total only for BLM managed Federal lands. In addition, the acreage totals listed for Reclamation managed lands appear to be in error. Reclamation managed lands within Yuma County in the 5-Mile Zone alone exceed 30,000 acres. We will consult with our LCRO to provide updated acreage information for your use.*

Response: Table 3-2 was deleted from the PRMP/FEIS because incomplete data precluded the BLM from rectifying the acreage errors in the DRMP/DEIS.

Comment 852: *Throughout the administrative actions on page 2-13 the term "limits of acceptable use" is used. Please define.*

Response: The term referenced in the Administrative Actions on page 2-13 of the DRMP/DEIS was "limits of acceptable change." The definition of "Limits of Acceptable Change" has been added to the glossary and defined as "A framework for establishing acceptable and appropriate resource and social conditions in recreation settings. A system of management planning."

Comment 991 (ADWR): *P. 2-80, Table 2-13. Creating and enhancing recreational*

opportunities are not objectives of the Lower Colorado River Multi-Species Conservation Program. The LCR MSCP could provide a model for creation of additional habitat.

Response: The primary objective of LCR MSCP projects is to create wildlife habitat. Coordination during the proposed project could include the creation or enhancement of recreational opportunities. In response to your comment, the Administrative Action has been deleted.

Comment 1338 (AGFD): *Page 2-5, Section 2.2.3, RMP Statement-None: The Department recommends adding the following statement under Standard 3. Ecological sites exhibit the appropriate composition of healthy vigorous native plant species, including perennial grasses.*

Response: Arizona Standards and Guidelines for grazing administration cannot be changed by the YFO for this PRMP/FEIS, because they were developed through a collaborative process involving the BLM Arizona Standards and Guidelines Team and the Arizona Resource Advisory Council. Together, through meetings, conference calls, correspondence, and Open Houses with the public, the BLM State Team and RAC prepared Standards and Guidelines to address the minimum requirements outlined in the grazing regulations. This document was approved by the Secretary of the Interior and amended to all Land Use Plans in Arizona in 1997. The Standards and Guidelines, criteria for meeting Standards, and the indicators are an integrated set of requirements that conform to the fundamentals of rangeland health and the requirements of the regulations when taken as a whole (Federal Register, Vol. 60, No. 35, February 22, 1995).

Comment 1355 (AGFD): *Page 2-46, 2.7.1 C Management Actions, 7th bullet, RMP Statement-Minimize the intentional take…: This statement is unclear and may be problematic. The statement implies that BLM will intentionally take wildlife. Please be aware and note that any intentional take of wildlife would need to be consistent with A.R.S. Title 17.*

Response: The PRMP/FEIS has been edited to remove the mentioned Management Action from Section 2.7. All BLM actions are in accordance with laws, regulations, and policies cited under Section 2.7.

Comment 737 (USIBWC): *Chapter 3, page 3-14, first full paragraph. Delete "northern international boundary" and insert "Northerly international Boundary." Revise the context of the first two lines of the paragraph because Morelos Diversion Dam is not a water retention structure it is a diversion structure. Listing it in the context of the stated creating lakes and reservoirs is incorrect. Morelos Diversion Dam does not result in a lake or reservoir. State that upstream of Morelos Dam the main river channel carries water that is delivered to Mexico pursuant to the 1944 Water Treaty, along with occasional high flows. Normally all of these water deliveries are diverted into Mexico's reforma Canal at Morelos Dam.*

Response: Edits have been incorporated into the PRMP/FEIS to correct the reference to the Northerly International Boundary and clarify the proper functioning dam type for the Morelos Diversion Dam. The Morelos Diversion Dam was removed from the statement that infers it creates a lake or reservoir. A clarifying statement was added that reads: “Upstream of Morelos Dam, the main river channel carries water that is delivered to Mexico pursuant to the 1944 Water Treaty, along with occasional high flows. Normally, all of these water deliveries are diverted into Mexico’s Reforma Canal at Morelos Dam.”

Comment 986 (ADWR): *Page 1-10, Program Specific Planning Criteria, F. Threatened, Endangered, and Special Status Species. Reference to the Lower Colorado River Multi-Species Conservation Program should be included in this section. The "Record of Decision, Lower Colorado River Multi-Species Conservation Program Final Environmental Impact Statement," approved April 5, 2005 by Secretary of the Interior Gale Norton, includes guidance, "...I also direct all participating agencies within the Department of Interior to utilize their authorities in furtherance of this conservation program to the fullest extent allowed by law.*

Response: As a Federal agency operating within the USDOI, it is appropriate for BLM to include the LCR MSCP in the Program Specific Planning Criteria Section in Chapter 1 of this plan. This was incorporated into the PRMP/FEIS.

Comment 1460 (YPG): *On page 2-53 and others, references to State Listed Species in AZ in somewhat misleading. "Listed" implies that a list was officially published (signed by proper State authority) and that such a list has some regulatory authority, whereas the Wildlife of Special Concern in AZ is in draft form and has no official regulatory authority of which I am aware. Although BLM may manage such species as though they have such regulatory protection (as does YPG), the distinction between Wildlife of Special Concern in AZ and "State Listed" should be clearly stated.*

Response: Section 2.8 of the PRMP/FEIS was reworded using the following terminology: "State Listed (Arizona's draft list of Wildlife of Special Concern or California Endangered Species Act)."

Comment 1411 (Reclamation): *Page 3-34, Salt cedar. The referenced vegetation numbers do not correspond to the numbers in the cited document, the LCR MSCP EIS/EIR. Please see Table 3.4-2 in the LCR MSCP EIS/EIR for the correct vegetation numbers that were derived from vegetation surveys along almost 400 miles of the lower Colorado River, from Lee Ferry to the Southerly International Boundary with Mexico. The RMP planning area can be corresponded to the LCR MSCP Reaches to determine accurate numbers.*

Response: Table 3-10 of the PRMP/FEIS reflects both lower Colorado River and Gila River vegetation/cover types as described in sources cited below the table. We believe this is the most accurate information for all riparian lands within the planning area. The LCR MSCP provides detailed information concerning riparian land cover by reach in the lower Colorado River only. The LCR MSCP has been added to the references cited to the PRMP/FEIS.

Comment 323: *Paragraph 1.5.1C (Recreation) mentions the need for additional improvements for Sandy Cove however this site is missing from Table 2-12 (Recreational Management Actions) as well as paragraph 3.13 and Table 3-19.*

Response: The specific reference in Section 1.5.1 C was taken from public comments submitted to inform the YFO of what the public felt were important recreation activities or actions on BLM-administered lands. Recreation site maintenance is an implementation level decision and is not considered a Management Action under the scope of a RMP. However, implementation level decisions such as site maintenance may be included in a plan under Administrative Actions, which are an explanation of how BLM's regular resource management activities are performed.

Comment 26 (Tamarack Lagoon Corp.): *The proposed [Walters Camp] SCRMA location requires clarification. Maps 2-11b (Alternative C) and 2-11d (Alternative E) show the entire 3,500 acre Walters Camp ACEC area instead of the 1,600 acre SCRMA.*

Response: The polygons for the Walters Camp ACEC under Alternative D and the Walters Camp SCRMA under Alternative C and the Proposed Plan are identical. Table 2-1 Special Designations shows the entire area acreage (4,500 acres) while Table 2-29 only shows the BLM-administered acreage (1,600 acres). Maps 2-1d and 2-11c and e have been corrected to show a more accurate polygon of the Walters Camp proposal.

Comment 1376 (AGFD): *Page 2-105, 2.14 Desired Future Conditions, RMP Statement-The use of the area is through non-motorized, non-mechanical means off designated routes: We request removing the words "non-mechanical". This would put restrictions on things like cameras, watches, guns, bows, etc.*

Response: YFO has clarified the Desired Future Condition for wilderness characters in Section 2.14 of the PRMP/FEIS. The Desired Future Condition for Primitive and Unconfined Recreation now states that, "Visitors may have outstanding opportunities for primitive and unconfined types of recreation where the use of the area is through non-motorized, non-mechanical means of conveyance off designated routes…" Because the Desired Future Condition now specifically identifies the use of "non-mechanical means of conveyance," public land visitors' use of mechanical items like cameras, watches, guns, bows, etc. would not be affected.

Comment 1379 (AGFD): *Page 2-107, 2.14 Project Criteria, 1st bullet, RMP Statement-Need for project to protect natural and cultural resources: We recommend changing this to: Need for project to protect, manage, and/or conserve natural and cultural resources.*

Response: Section 2.14, Project Criteria were revised to include the following text: "Need for project to protect, manage, and/or conserve natural and cultural resources".

Public Concern 2: Mapping and GIS

Comment 726 (USIBWC): *Map 3-11_Fire_Risk_Condition_Classes1.pdf. Show the USIBWC property as being in your purple designation "Urban/Development" category. Do so for the Morelos Diversion Dam and the gauging station cable crossing area, called the "NIB Cableway Crossing," located near the Northerly International Boundary (NIB).*

Response: The purpose of Map 3-11 displays the current fire regime condition classes, based on degree of departure from historical/natural fire regimes. The map does not display all individual infrastructure or specific facilities within units outside the "Urban/Development" category. Within the planning area, all fires are fully suppressed on public land.

Comment 1172 (EPA): *Table ES-2 states that Alternatives A & B each have 1,005,800 acres available to livestock grazing and that 312,200 acres are unavailable. The amount of available grazing areas shown in Map 2-4a and Map 2-4b differ and appear to be incorrect. Map 2-4-c illustrates grazing management Alternatives C and E, with 387,100 acres available to livestock grazing and 930,900 acres unavailable to livestock grazing. Map 2-4-c appears to be incorrect*

as well.

Response: YFO made the appropriate changes to the PRMP/FEIS.

Comment 1173 (EPA): *Map 3-1 illustrates the PM10 Non-Attainment Area. The Martinez Lake Open OHV Area is shown on Maps 2-8b, 2-c, 2-e, which illustrates Travel Management Areas and OHV Area Designations. Based on the PM10 designations shown on Map 3-1, it appears that Martinez Lake Open OHV Area is not located in the PM10 non-attainment area; however, the DEIS states that it is located inside the PM10 non-attainment area (table 4-3; pg. 4-8).*

Response: You are correct that the proposed Martinez Lake Open OHV Management Area is not within the PM_{10} non-attainment area, and the erroneous references to these overlapping areas have been removed from the PRMP/FEIS. The proposed Martinez Lake Open OHV Management Area was removed from the Proposed Plan in the PRMP/FEIS.

Comment 1385 (AGFD): *Map TMA-2, 2.12, RMP Statement-None: The La Posa Travel Management Area map is missing the access road to water catchment #519 off LP713.*

Response: The missing route has been added to the route inventory map.

Comment 1175 (Reclamation): *Maps showing management responsibility and land status do not accurately reflect Reclamation withdrawn or acquired lands. Reclamation withdrawals are listed on Appendix 2-F, Current withdrawals in the Yuma Field Office, Page 2-F.1. These withdrawn lands should be accurately displayed on the DRMP/DEIS maps as are those other Federal agencies such as U.S. Fish and Wildlife Service and U.S. Department of Defense.*

One example that is of particular concern to Reclamation is illustrated by Map 1.1: Project Planning Area. All Federal lands, whether withdrawn or acquired, within the 5-Mile Zone Protective and Regulatory Pumping Unit (5-Mile Zone) are Reclamation administered lands. Reclamation's management responsibilities are authorized by the Treaty of 1944 and Minute No. 242 of the International Boundary and Water Commission. Please reference our 5-Mile Zone Resource Management Plan and Environmental Assessment of April 2004 that accurately shows Reclamation administered lands and specifies Reclamation's mandated management responsibilities.

Response: Map 1-1 is not intended to depict Reclamation withdrawn lands. This is a general schematic map which is intended to show the public readers the distribution of Federal land management, and State and private ownership. The map legend distinguishes Reclamation acquired land from BLM-administered public land.

Comment 727 (USIBWC): *Map 3-22_Recreation_Opportunity1.pdf. The map shows the Cocopah bend area of the Limitrophe Reach as "Rural natural." The Map 3-11_Fire_Risk_Condition_Classes1.pdf shows the same area as being "Urban/Development." There seems to be a slight inconsistency.*

Response: Map 3-11 Fire Risk Condition Classes uses a different classification system than the Recreation Opportunity map shown on Map 3-22. For firefighting, the area is classified as

Urban/Development to assist firefighters to determine whether a fire is near urban structures. The ROS map represents whether developed facilities for recreation are present in the area. The maps are not comparable because the different classifications are for different purposes.

Comment 723 (USIBWC): *On Map 2-11b_Cultural Alt_CH1.pdf, where exactly are the proposed special cultural resource management area, and area of critical concern, located on the international Limitrophe Reach? Are the areas from the Northerly International Boundary to the Southerly International Boundary, on the United States side of the bed and bank of the Colorado River in the middle of the current main normal flow channel alignment? Is the Morelos Diversion Dam facility in the proposed areas? Does the riverside of the proposed areas 'fix" to whatever the main channel alignment is/will be? Do the areas cross the boundary? Do they "fix" to the 1973 to 1975 international boundary alignment, as is the formal location of the international boundary?*

Response: As shown on map 2-11 B, the Limitrophe ACEC is on the U.S. side of the International Boundary, from the levee to the center of the river. BLM would rely upon the USIBWC to identify the correct alignment between the Northerly and Southerly International Boundary between the U.S. and Mexico. Designation of the ACEC or identification of the CMA would only apply to the U.S. side of the International Boundary. SCRMA, ACEC, and CMA boundaries are the same. For the CMA, participation in coordination of the Limitrophe area will depend on the land owner and their desire to be included.

Comment 831 (Arizona Wilderness Coalition): *I think you will find some changes in our recommendations and some more support for our inventories through our route and wilderness inventories.*

Comment 832 (Arizona Wilderness Coalition): *GIS shapefiles for AZ Wilderness Coalition Proposals attached:*

> *awc_proposed_wild_yuma3_07.shx; awc_proposed_wild_yuma3_07.dbf; awc_proposed_wild_yuma3_07.shp; allphotopts_yuma3_07.dbf; allphotopts_yuma3_07.shp; allphotopts_yuma3_07.shx*

Response: BLM acknowledges receipt of the submittal and appreciates the Arizona Wilderness Coalitions involvement in the public participation process. The YFO has considered this information in the development of this PRMP/FEIS and will also consider this information during future travel management planning efforts for these areas.

Comment 730 (USIBWC): *Map_3-6_Riparian_Habitat1.pdf. The map shows riparian area along/in the Limitrophe Reach. Based on the wetlands and riparian vegetation classifications completed in 2006 at the Morelos Diversion Dam, the vegetation there is composed predominantly of salt cedar. The habitat type at the Morelos Dam is the salt cedar-cottonwood-willow habitat. As you know, the habitat is the most common and widespread riparian habitat along the Lower Colorado River. The map seems misleading by indicating the Limitrophe Reach as entirely a riparian area given, as you know, the riparian forest habitat has been significantly altered by introduction of salt cedar, as indicated in Map 3-8_Lcol_Rip_Veg_South1.pdf.*

Comment 1412 (USIBWC): *Map 3-8_Lcol_Rip_Veg_South1.pdf. the map indicates that the Morelos Diversion Dam area is predominantly cottonwood-willow. That is misleading. The area is predominantly salt cedar and the habitat type salt cedar-cottonwood-willow habitat. In addition, the map indicates there is a marsh at the dam. The United States Army Corps of Engineers approved Section 404 Jurisdictional Delineation dates November 30, 2006 shows substantially no marsh. This comment assumes that the states "marsh" is wetlands. There are substantially no wetlands in the 40-acre area of Morelos Dam.*

Response: Salt cedar or mixed salt cedar/cottonwood is considered valuable riparian habitat. Even though salt cedar is a non-native invasive species, it does provide migratory habitat for many birds and nesting habitat for white-winged dove. The source for this vegetation mapping is from Reclamation, based on original vegetation surveys by Ohmart and Anderson (1982) and Ohmart, Anderson, and Hunter (1988). These two mapping efforts are the basis for all vegetation mapping on the lower Colorado River.

Comment 728 (USIBWC): *Map_2-11b_Cultural_Alt_C1.pdf. Clarify. The reviewer is unable to see the extent of the proposed special cultural resource management area in the Limitrophe Reach. Is the "SCRMA areas" all of the Limitrophe or a portion of the Limitrophe?*

Response: The boundaries for the Limitrophe SCRMA proposed in Alternative C and the Limitrophe ACEC proposed in Alternative D are identical. While Table 2-1 (Special Designations by Alternative) shows the entire acreage of the Limitrophe, Table 2-29 (SCRMAs by Alternative) only includes BLM-administered acres.

2. Alternatives

Public Concern 1: Range of Alternatives

Comment 1055 (Animal Welfare Institute): *The BLM has failed to develop a reasonable range of alternatives, to provide adequate information to support its preferred alternative and to disclose documentation and information that are absolutely crucial to the public's ability to both understand the environmental impacts of the various alternatives and to prepare informed comments in response to the alternatives analyzed in the DRMP/EIS. Furthermore, the agency has also carried forward many planning decisions from the existing RMP that it considers "effective and valid," thereby compromising the integrity of the environmental review process as provided for by NEPA. Doing so limits the framework and content of alternatives and suggests that certain decisions are pre-determined. It is incumbent upon the agency to explain in detail in the DRMP/EIS, a document whose purpose is to guide future land management actions, why it considers certain existing management decisions to be "effective and valid" and in no need of new analysis with full public participation.*

Comment 1021: *Insure that wild horses and burros are considered comparable to other resource values within the Resource Management Plans, Land Use Plans and framework.*

Response: The BLM engaged in collaboration efforts by including communities in the formulation of YFO management alternatives. Workshops were held throughout the planning

area to give citizens the opportunity to refine issues, discuss visions for the YFO planning area's resources, and begin exploring alternative ways to manage the planning area. Input received from citizens, both groups and individuals, was considered in developing the alternatives.

Each alternative was essentially a land use plan that would provide a framework for multiple use management of the full spectrum of resources, resource uses, and programs present in the YFO planning area. Under all alternatives, the BLM provides for the proper care and management of the resources in accordance with all applicable laws, regulations, and BLM policy and guidance.

According to YFO staff, the PRMP/FEIS best meets BLM direction as set in FLPMA of 1976. FLPMA requires that BLM adopt a balanced approach to managing public lands "in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use;" (FLPMA Sec 102 [a][8]) while also providing "the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber and fiber from public Lands including the Mining and Minerals Policy Act of 1970…"(FLPMA Sec 102. [a][12]).

A land use plan evaluation conducted in 2000 concluded that the decisions in the 1987 Yuma District RMP were for the most part "effective and valid"; these decisions were presented in the draft as Alternative A. Alternative A was analyzed along with the other alternatives to write the Proposed Plan. The YFO RMP Proposed Plan represents the best combination of possible proposed actions.

Subconcern: Wilderness Characteristics and Off Highway Vehicle Use

Comment 1102 (Center for Biological Diversity et al.): *Another question that must be answered is, if this policy is acceptable, then why wasn't alternative C chosen and why were the Plomosa Mountains excluded from Alt C? All of the areas displayed in Alt C match those displayed on Map 3-14 that contained all three wilderness characteristics except for the Plomosa Mtns.*

Comment 1112 (Center for Biological Diversity et al.): *Furthermore, the various alternatives for ORV designations fall short of providing a reasonable range of alternatives. In AZ Wilderness Coalition comments submitted for scoping, alternative development, and the preliminary range of alternatives all request that all areas with wilderness characteristics be closed to ORV travel. None of the alternatives displayed analyze the areas found to have wilderness characteristics in Map 3-14. As has been stated before, the lack of proper analysis and taking a hard look at the range of alternatives leaves this RMP on shaky ground in relation to ORV management. We feel the BLM can do better and must provide adequate protection for those lands that are roadless today.*

Comment 1103 (Center for Biological Diversity et al.): *In the Environmental Consequences of the DRMP/DEIS section 4.10.1(A) Degradation From Travel Management it is implied that off-road vehicle (ORV) travel routes are beneficial to wilderness characteristics in this degradation section, but no mention is made in the Enhancement/Beneficial section. Furthermore the*

statement "especially for those unable to walk very long distances", needs to be quantified. What is very long?

In the BLM land of the Yuma East region there are approximately 11 units totaling 52,397 acres, which are more than two miles from a road, and this includes the existing Eagle Tail Mountains Wilderness. If the Eagle Tails are not included there are only 10,645 acres of these places, with the largest being 3,265 acres and the smallest being 46 acres with an average of 1,064 acres. Many pieces of scientific literature suggest that roads/routes have a zone of effect greater than the actual physical foot print. The included unpublished paper "Ecological Impacts of Roads" as well as the USGS "Desert Road Ecology Report" should be referenced and used in the wilderness character, wildlife, and transportation management sections of the analysis to produce the FEIS. Numerous places in the EIS (page 2-51) the BLM makes reference to the fact that the Yuma East region is part of the largest remaining unfragmented portion of public land in southwestern Arizona. This information should be further considered in the cumulative impacts section of the Environmental Consequences.

***Comment 1283:** To date, less than 3 percent of the lower, contiguous United States is protected as congressionally designated, "roadless" wilderness, not nearly enough space to assure long-term survival of many native animals, such as Sonoran pronghorn, mountain lions, desert tortoise, and desert bighorn sheep. The Arizona BLM has the authority to recognize and preserve wilderness and should take full advantage of this authority to preserve the "naturalness, solitude, and opportunities for primitive and unconfined recreation" on all of the 301,200 acres of wilderness-quality lands BLM found in their inventories and agreed to by the Arizona Wilderness Coalition as listed in Alternative D. All these lands should be incorporated into your proposal.*

Response: The Arizona Wilderness Coalition requested that the BLM consider an alternative where 301,200 acres identified to maintain wilderness characteristics would also be designated as Closed OHV Management Areas. Alternative D of both the DRMP/DEIS and PRMP/FEIS proposed and analyzed designating 56,600 acres of lands identified to maintain wilderness characteristics as Closed OHV Management Areas. Under Alternative D, the remaining 244,600 acres of lands identified to maintain wilderness characteristics are proposed as a Limited OHV Management Area, where motorized travel would be limited to inventoried routes until designated. YFO staff considers the Alternative D proposals to be the most practical acreage of Closed OHV Management Areas that the BLM would be able to sign, monitor, and enforce. Considering wilderness characteristics in the land use planning process may result in several outcomes, including, but not limited to 1) emphasizing other multiple uses as a priority over protecting wilderness characteristics; 2) emphasizing other multiple uses while applying management restriction (conditions of use, mitigation measures) to reduce impacts to some or all of the wilderness characteristics; 3) emphasizing the protection of some or all of the wilderness characteristics as a priority over other multiple uses (though the area will not be designated a WSA) (IM No. 2003-275 – Change 1).

Subconcern: Water Resources

Comment 733 (USIBWC): *Chapter 2. The reviewer does not clearly see an alternative that fits the needs that include conducting maintenance in the Limitrophe Reach, Morelos Diversion Dam, NIB Cableway Crossing, re-establishing the gage station for water measurement at the downstream side of Morelos Dam, and Treaty and Minute responsibilities and agreements made with Mexico. Alternative A, the "status quo," seems to be close to accommodating needs. Management of the existing resources occurs. The resources are protected. Increasing management by other alternates results by special designations for the Limitrophe Reach, and thus higher priority.*

Response: BLM appreciates the comment and the USIBWC's participation in the planning process. However, some of the areas mentioned in the comment are not within BLM-administered lands or under BLM management. For future authorization on BLM-administered lands within the Limitrophe, BLM will coordinate with other agencies including the USIBWC. The Limitrophe area is subject to pressure due to its position as an International Boundary, and several agencies have jurisdiction over actions for water delivery, border security, etc. The Proposed Plan considers the existing condition and accommodates for new activities in coordination with all affected parties.

Public Concern 2: Suggestion for New Alternative

Subconcern: Natural Environment, General

Comment 77: *Protect our public lands in Western Arizona by creating a preferred alternative in the final Resource Management Plan that incorporates some of the more protective provisions in Alternative D, but that also includes additional protections for the land, wildlife, and cultural sites.*

Comment 95: *Alternative D in the draft RMP is the best alternative so far, but it doesn't go far enough to protect the unique and fragile resources of the region. The BLM should create and select an alternative that strengthens the plan.*

Response: BLM has the responsibility under FLPMA to manage all its public lands under the principles of multiple use and sustained yield for the growing population. This requires that YFO carry forward a balanced approach to management and allocations as defined in the PRMP/FEIS. Currently, the YFO manages four designated Wilderness areas in Arizona and portions of four designated Wilderness areas in California that are closed to all motorized and mechanized uses in perpetuity as established by Congress.

Subconcern: Wilderness Characteristics

Comment 90: *Protect public lands in Western Arizona by supporting the Arizona Wilderness Coalition proposal for protection of 317,339 acres with wilderness characteristics, including lands in the proposed Palomas Plain ACEC and the lands between Highway 95 and the western boundary of the KOFA National Wildlife Refuge.*

Comment 288: *All areas adjacent to the Kofa National Wildlife Refuge should be protected for their wilderness characteristics. Such as the Little Horn Mountains. Just because an area is flat does not mean it does not have wilderness character. Manage all lands with wilderness characteristics to prohibit road building, right of ways, and new mineral entry.*

Comment 1105 (Center for Biological Diversity et al.): *The following paragraphs contain information that supports creating a preferred alternative that protects more areas for their wilderness characteristics.*

The protection of wilderness characteristics in the Yuma East region for the Little Horn Mountains is completely appropriate and should be expanded to the east due to recent AWC inventories that show route YE 230 is in a reclaiming status. It is obvious from AWC's inventories that the BLM's inventory process is flawed as BLM gives the Little Horn Mtns all three wilderness characteristics in Map 3-14, but does not recognize that YE230 is in a reclaiming status with three foot tall creosote and non-navigable due to its reclaiming status. This new information makes the unit bigger encompassing the Nottbusch Valley unit. The BLM's inventory should not have a straight line boundary along YE230 depicting one area with all three characteristics and another with only naturalness. During our inventory we experienced spectacular solitude and outstanding primitive and unconfined recreation in this area. We observed a bighorn sheep in the flats to our east making our experience for this inventory trip. This confirms that this marginal bighorn sheep habitat in the bajada is at least used for sheep to disperse between the Eagle Tail Mountains Wilderness, Little Horn Mountains, and on to the Kofa National Wildlife Refuge. The new acreage for the Little Horn Mountains should be 46,529.

Further to the south in the Yuma East Region our inventories also found an error with the BLM inventoried route YE010. This route does not exist to the extent the maps show it. It does not continue west past YE025 splitting the Hoodoo Wash and Palomas Plain inventory units. The AWC previously submitted preliminary recommendations that requested that these two units be protected. The absence of YE010 has provided significant new information and we now propose that these two units be combined into the Palomas Plain unit with acreage of 25,286.

It is difficult to believe that the BLM's inventory for wilderness characteristics did not find the 7,931 acres of the BLM land adjacent to the Kofa NWR designated wilderness to have all three wilderness characteristics. Providing protection to these areas would create a more seamless management for the characteristics that exist within these places. There is only an old barbed wire fence between the designated wilderness and these units.

The process of inventorying for wilderness characteristics is subjective in many respects. The evaluation of solitude can be an elusive value. Many assume that only places with dramatic topography can provide solitude, but this is not correct. The current policy for protecting wilderness characteristics does not provide guidance on how to conduct inventories and the ROS spectrum does not adequately address solitude, so this is where individual judgment comes in. The areas in the Yuma East region, part of the Palomas Plain, are generally flat with large washes running through them. In AWC inventories volunteers and Jason Williams spent several days in this region and experienced tremendous solitude. It is surprising how quickly an individual can lose sight of a vehicle with walking a ¼ mile into these flat areas. The gently

rolling terrain rolls just enough to get you out of view quickly and one can easily become lost. Since it is flat you cannot see roads or other improvements in the distance. There are relatively few flatter areas that have been protected for their wilderness characteristics. That is a mistake. The washes are the crown jewels of these areas as they increase solitude dramatically because visitors are below the dominant terrain. The Yuma BLM should reconsider its evaluation of these flat areas and consider highlighting them as a different type of wilderness experience.

Comment 1104 (Center for Biological Diversity et al.): *The DRMP/DEIS identified 48,400 acres of wilderness characteristics to be protected in the preferred alternative. The AWC agrees with the areas selected, but we believe that it falls far short of the lands that clearly have wilderness characteristics as identified by the BLM through their inventory as shown on Map 3-14.*

Comment 337 (YVRGC): *No. No. No. Management with wilderness characteristics. Keep it as is/solitude/naturalness and primitive unconfined recreation without wilderness*

Response: The YFO conducted a reassessment of route Yuma East (YE) 230 in May 2007. The YFO determined that route YE 230 is navigable and not in a reclaiming status. A high clearance four-wheel drive vehicle is needed to successfully navigate route YE 230. Route YE 230 is commonly used by the public during various hunting seasons to access the eastern side of the Little Horn Mountains. YFO staff also encountered winter visitors driving all-terrain vehicles on route YE 230 during monitoring patrols. The creosote bushes (*Larrea tridentata*) in YE 230 are all located in the centerline of the route between the two vehicle tracks. It is not uncommon for vegetation to grow in the centerline of undeveloped motorized routes throughout the planning area, as the tires of vehicular traffic prevent vegetation from growing within a route's two tracks. Vegetation is especially common in the centerline of rugged narrow routes such as YE 230, where it would be difficult for even a high-clearance vehicle to cross the route's centerline. Typically, the YFO considers a route to be in a reclaiming status when woody vegetation is found growing within a route's two tracks, an indication that vehicle tires have not passed over for some time.

A reassessment of the lands east of route YE 230 was completed in May 2007 and indicated that opportunities for primitive and unconfined types of recreation do exist. Map 3-18 in the PRMP/FEIS has been updated to reflect this change. The May 2007 assessment indicated that there are fewer outstanding opportunities to experience solitude on the lands east of route YE 230 due to a lack of vegetation and rugged topography that would provide some degree of screening from other people in the area, noise and dust from vehicular traffic on routes YE 003 and 230, and the sights and sounds from overhead military training routes (refer to Map 3-28) and civilian flights; this assessment also indicated that the lands west of route YE 230 provide greater opportunities to experience solitude as one travels closer to the rugged topography of the Little Horn Mountains and further away from routes YE 003 and 230.

The Proposed Plan of this PRMP/FEIS proposes to allocate the lands between route YE 230 and the Eagletails Mountains Wilderness as the Palomas Plain WHA, a Desert Mountains WHA, and a Wildlife Movement Corridor WHA for the purposes of managing bighorn sheep habitat and movement.

In May 2007, the YFO verified that route YE 010 does in fact continue west past route YE 025 towards Hoodoo Wash as it appeared on the DRMP/DEIS Yuma East Travel Management Area Map (Map TMA 3). Route YE 010 continues to appear in the PRMP/FEIS route inventory maps. The two inventory units north and south of YE 010 have continued to be separately proposed as lands with wilderness characteristics under Alternative D of this PRMP/FEIS.

A field assessment for the 5,437-acre Beaver Dam Mountains North Addition unit was completed in June 2005. The assessment indicated that this area does not exhibit outstanding opportunities for primitive and unconfined types of recreation due to the fact that Coyote Peak is the only feature of the inventory unit that lends itself to non-motorized types of recreation and the rest of the area is primarily used through motorized means. A field assessment for the 2,494-acre Beaver Dam Mountains South Addition unit was completed in July 2005. The assessment indicated that this area does not exhibit outstanding opportunities to experience solitude due to noise and dust from routes YE 006 and YE 065 and a lack of vegetation and rugged topography that would provide some degree of screening from other people in the area.

The use of protective designations adjacent to existing designated Wilderness, or buffer zones, is prohibited under BLM policy. BLM Manual H-8560-1 – Management of Designated Wilderness Areas states that, "no buffer zones are created around wilderness areas to protect them from the influence of activities on adjacent land. The fact that non-wilderness activities or uses can be seen or heard from areas within the wilderness does not, of itself, preclude such activities or uses up to the boundary of the wilderness area" (Section .19). The YFO also considered the practicality of managing lands with wilderness characteristics, as allowable under BLM policy (BLM IM No. 2003-275 - Change 1), to develop the Proposed Plan acreage proposals in both the DRMP/DEIS and PRMP/FEIS.

Comment 1283: *To date, less than 3 percent of the lower, contiguous United States is protected as congressionally designated, "roadless" wilderness, not nearly enough space to assure long-term survival of many native animals, such as Sonoran pronghorn, mountain lions, desert tortoise, and desert bighorn sheep. The Arizona BLM has the authority to recognize and preserve wilderness and should take full advantage of this authority to preserve the "naturalness, solitude, and opportunities for primitive and unconfined recreation" on all of the 301,200 acres of wilderness-quality lands BLM found in their inventories and agreed to by the Arizona Wilderness Coalition as listed in Alternative D. All these lands should be incorporated into your proposal.*

Response: BLM considered the practicality of managing these areas with wilderness characteristics according to the Arizona State IM on wilderness characteristics.

Public Concern 3: Alternatives Analyzed

Subconcern: No Affected Resource/Reason

Comment 621: *I believe that Alternative B would be the best all around proposal for the public lands in and around the Quartzsite area.*

Comment 634: *I have chosen Alternative C as second choice.*

Comment 969: *Alternative "E" (preferred) looks best. Forget "D."*

Comment 1225: *I would prefer Plan B. Second choice would be Plan C.*

Comment 1296 (Huachuca Hiking Club): *The preferred alternative E reflects the best mix of management decisions to achieve BLM's goals and objectives.*

Comment 347: *Plan A. Leave desert alone.*

Comment 427: *The no-action alternative should be adopted for the preferred alternative.*

Response: BLM appreciates the comments and the commenters' participation in the planning process. Under FLPMA, BLM has the responsibility to manage all its public lands under the principles of multiple use and sustained yield for the growing population. This requires that YFO carry forward a balanced approach to management and allocations as defined in the PRMP/FEIS.

Most of the public comments received during scoping, alternative development, and on the DRMP/DEIS were form letters, which usually lacked specific comments on specific decisions. All comment letters received were read, analyzed, and considered at each of the planning stages. Specific comments, either written or in meetings, proved best in providing rationale for specific changes. The information provided by the public, whether specific or not, helped in shaping this PRMP/FEIS, which represents the best balance of protection and use of public lands.

Subconcern: Multiple Affected Resources/Reasons

Comment 1013 (City of Yuma): *Alternatives A, B, C, and E increase motorized vehicle access and visitor activity within the Gila Mountains and diminish the area as a visual and cultural resource.*

Response: BLM appreciates the comment and the City of Yuma's participation in the planning process. The proposal to designate the 1,300-acre Blaisdell Open OHV Management Area near the Gila Mountains has been removed from the Proposed Plan. The YFO will further address motorized vehicle access within the Gila Mountains during the development of the Greater Yuma Travel Management Plan. Visual resources are maintained through the use of VRM Classes. These classes were determined through the inventory process described in Chapter 3, and management objectives were applied for each of the alternatives in Chapter 2. The Proposed Plan attempts to provide a balanced approach that meets the overall management objectives.

Comment 318: *Redundant roads that divide wildlife habitat or damage archaeological sites should be removed, and I ask you to instead adopt an alternative that closes all areas currently roadless in wildlife habitat areas, ACECs, and areas with wilderness characteristics.*

Comment 1110 (Center for Biological Diversity et al.): *Compelling information contained in the DRMP/DEIS appears to support the closure of many proposed special management areas to ORV use. Such closures would appear warranted given the ecological diversity of the 1.3 million-acre planning area and the fact that the level of ORV use and associated adverse impact*

has increased dramatically within the 20 years since BLM last designated ORV management areas in the region. Indeed, each of the three remaining action alternatives in the DRMP/DEIS propose differing degrees of motorized closures... The Preferred Alternative, however, incorporates no new closures and the DRMP/DEIS lacks adequate explanation regarding their absence.

In sharp contrast to its utter lack of ORV closures to protect sensitive resources, the Preferred Alternative proposes the designation and expansion of four ORV "Open" areas where unregulated cross-country ORV travel could occur. These Open area designations are proposed despite documentation within the DRMP/DEIS of potentially significant resource conflicts associated with ongoing and proposed cross-country travel. Consequently, the BLM's designation of ORV Management Areas that comprise its Preferred Alternative stands in sharp contrast to that required under FLPMA, which mandates that the BLM act to minimize adverse impacts on public land resources.

Comment 1111 (Center for Biological Diversity et al.): *The BLM's Preferred Alternative Conflicts with Direction Contained Within Executive Order 11644. In making ORV designations, both Executive Order 11644 and 43 C.F.R. § 8342.1 obligate the BLM to ensure that ORV areas and trails are located:*

- *to minimize damage to soil, watershed, vegetation, or other resources of the public lands;*
- *to minimize harassment of wildlife or significant disruption of wildlife habitats;*
- *to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands;*
- *to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors; and*
- *outside officially designated wilderness areas or primitive areas.*

These regulations are unambiguous in directing BLM to allow ORV use only where it does not endanger or interfere with the other resources and users of the public lands. Yet the BLM's Preferred Alternative, as described in the DRMP/DEIS, largely ignores this important obligation as it fails to enact area-wide closures to motorized uses in order to protect sensitive resources. In sharp contrast to its obligation to minimize ORV-related impacts, the Preferred Alternative instead proposed to increase the footprint of lands designated Open to damaging cross-country ORV use. As mentioned previously, Appendix A provides a summary of text found in the DRMP/DEIS that documents the extent and magnitude of ongoing ORV-related resource degradation that would be expected to continue under the Preferred Alternative.

Strict adherence to the impact minimization criteria contained within 43 CFR §8342.1 would dictate that the DRMP/DEIS promote ORV management actions that emphasize preservation of the planning area's natural and cultural resources. Yet among the alternatives described in the DRMP/DEIS, only Alternative D appears to emphasize the protection of resources over the promotion of motorized recreational opportunities. Surprisingly, the BLM's Preferred Alternative, as described in Table 2-25, ORV Management Area Designations by Alternative, appears to most closely match the ORV-related management actions contained within

Alternative B, which provides emphasis on consumer-driven uses.

In order to be consistent with prevailing law and policy, the Preferred Alternative must be amended to better reflect BLM obligations under 43 CFR §8342.1. Specifically, the BLM must seek in the RMP to minimize adverse environmental impacts resulting from its designation of ORV management areas, including the designation of areas closed to ORV use where such closures would serve to minimize adverse ORV-related impacts to areas identified for special management, such as Areas of Critical Environmental Concern (ACECs), Wildlife Habitat Management Areas (WHMAs), Special Cultural Resource Management Areas (SCRMAs), areas with Wilderness Characteristics, and areas of highly erosive soils within the PM10 (air quality) non-attainment area. The BLM can not abdicate its responsibilities under 43 CFR §8342.1 by relying solely on future Travel Management Plans to minimize adverse effects to these and other public lands resources.

Response: The Proposed Plan of the PRMP/FEIS proposes to designate an additional 3,700 acres of Closed OHV Management Areas within two proposed ACECs and one SCRMA. These proposed Closed OHV Management Areas would minimize impacts to soils, vegetation, wildlife habitat, and extensive cultural resources from motorized travel. BLM will address individual route designations in future Travel Management Plans, which will evaluate impacts to all resources included in the BLM's multiple-use mission, including those of concern to the commenters.

Alternative D of both the DRMP/DEIS and PRMP/FEIS proposed and analyzed the impacts of designating 66,000 acres of Closed OHV Management Areas outside of designated Wilderness, including lands within proposed WHAs, ACECs, and wilderness characteristics. Existing BLM policy and Federal, Arizona, and California State laws all currently prohibit cross-country vehicle use within roadless lands.

The YFO planning area is managed in accordance with the intent of FLPMA for multiple use and sustained yield. This is demonstrated by the multiple resource program management prescriptions in this PRMP/FEIS.

Comment 1012 (City of Yuma): *The City of Yuma Administration prefers Alternative D for the following reasons. Limits the use of off-highway recreational motor vehicle access within the Gila Mountains area. Preserves the Gila Mountains area as a natural and cultural resource. Excludes the use of community pits, offers opportunities for dispersed non-motorized recreation and for incorporating vast recreational opportunities for future urban residents of the Gila Valley on both sides of the mountains.*

Response: Based on public comment the Telegraph Community Pit and Blaisdell Open OHV Management Area were not included in the Proposed Plan in the PRMP/FEIS. The Proposed Plan protects natural,cultural, and visual resources through VHAs, WHAs, SCRMAs, and VRM classifications.

Subconcern: Wildlife/Animals

Comment 1188 (Arizona Desert Bighorn Sheep Society): *Because of the allocation of MWC's [managing for wilderness characteristics] and enhanced VRM's in the preferred alternative and throughout the range of draft alternatives we can only presently support alternative A for no action. We were not surprised to see a couple of alternatives that were progressively more preservation oriented but would have expected to see at least one alternative that would have been more responsive to wildlife management and wildlife resource conservation without being compromised by other consumer based needs. None of the alternatives places an emphasis on this wildlife management and conservation approach. Alternative B compromises wildlife by encouraging, enhancing and developing public use. Alternatives C and D pose a threat to wildlife by being too preservation oriented. The preferred alternative E is now an amalgamation of these other errant alternatives and it misses the mark for true and active wildlife conservation. We would suggest that a revised preferred alternative be developed [that] addresses these inherent conflicts and offers a more appropriate and reliable remedy. In our opinion an appropriate remedy would not sacrifice or potentially threaten wildlife conservation for the sake of preservation. Such a remedy would also provide reasonable vehicular public access, dispersed wildlife dependent recreation, undeveloped camping and minimal development and human disturbance within wildlife habitat. The final RMP should resolve more conflict than it creates.*

Response: The BLM worked closely with AGFD to develop an appropriate range of alternatives for wildlife habitat management. ACECs, WHAs, VHAs, lands identified to maintain wilderness characteristics, and VRM Class II further enhance wildlife habitat by maintaining the naturalness of these lands. The Desired Future Conditions of these areas are to promote healthy, diverse, sustained habitat by minimizing the amount of wildlife habitat fragmentation and disturbance to wildlife populations. Commercial activities would be restricted from these areas or mitigated appropriately to meet habitat conditions. Motorized use within the planning area would be limited to inventoried routes until designated. Individual routes would be evaluated during subsequent Travel Management Plans to determine if OHV use is appropriate. Anticipated impacts to wildlife habitat and undeveloped recreation opportunities under each alternative are described in sections 4.4 and 4.13.3, respectively, in this PRMP/FEIS.

Subconcern: Potential for Special Designation

Comment 708 (Cocopah Indian Tribe): *Under the Special Designations -- The ACEC listing of the BLM's preferred alternative is Alternative C. This Alternative only includes 3 ACECs. We feel the preferred Alternative should be Alternative D. This alternative names 7 ACECs which included areas of great importance to the tribe such as Sears Point, Dripping Springs, and the Gila River Terraces. These areas should receive the full protection that an ACEC designation would provide. We are aware that the Limitrophe region is being considered as a Coordinated Management Area and could be removed as an ACEC.*

Comment 1130 (Center for Biological Diversity et al.): *Alternative D includes protection for most of the acreage identified as meeting relevance and importance criteria, including necessary management prescriptions. Special protection is warranted and required under the guidelines set*

forth in 43 C.F.R. § 1610.7-2, and FLPMA (43 U.S.C. § 1712). Neither current management practices nor the preferred alternative in the DRMP/DEIS provide sufficient protection for these species with regards to the known threats to their existence, making designation of ACECs an appropriate method to ensure protection. In order to comply with FLPMA, BLM should designate the proposed ACECs and expansions.

Comment 1135 (Center for Biological Diversity et al.): *Limitrophe ACEC. Once again, we fail to understand how BLM can recommend against designating this area an ACEC. It meets virtually all the above-mentioned criteria that qualify an area for ACEC status. It possesses relevance, in the presence of cultural values, especially to the Cocopah and other Native Americans, having once been part of their homeland and still utilized; scenic values (riparian vegetation and water in the midst of the desert); fish and other wildlife resources including migratory birds and endangered species protected by law, and natural and other public safety hazards (e.g., fires, smuggling, illegal border crossings, robberies, kidnappings, rapes, murders) with a need to protect life and promote safety. It possesses importance, as a habitat for migratory and endangered species, as an essential part of the repository of traditional wisdom of Native Americans, in particular the Cocopah, and as an international border and a major crossing point for undocumented immigrants and smugglers; thus its importance extends beyond its immediate area. It also needs special management attention in order to protect the rare and sensitive riparian vegetation, migratory birds and endangered species, and public safety.*

Comment 1137 (Center for Biological Diversity et al.): *Palomas Plain ACEC. This large area provides a variety of reasons for its designation as an ACEC. The habitat is mainly unfragmented, and could serve as a reintroduction site for the endangered Sonoran Pronghorn. Other wildlife is also of interest to persons experiencing the area's undeveloped recreational opportunities, including Desert Tortoise. The area is also scenic. There is also a public safety issue, since the area is east of Yuma Proving Ground where test firing of weapons occurs and there is a potential for overshooting the Yuma Proving Ground boundary. Rather than limiting vehicular travel to existing inventoried routes, BLM should designate specific travel routes through this area. Invasive plant species are a threat to the natural environment in this area and limiting vehicular travel to designated routes, requiring cleaning of vehicles and footwear before entering the area, and use of weed-free hay for equestrians could reduce the likelihood of invasive plants becoming established. The area should also be withdrawn from new mineral entry because it is set aside for specific purposes which are inconsistent with mining activities.*

Comment 1138 (Center for Biological Diversity et al.): *Gila River Terraces & Trails ACEC. This area contains many cultural and probably paleontological sites of not only national but international importance. The area also contains natural resources, including rare riparian habitat, particularly in the Fred J. Weiler Greenbelt. The diversity of landowners will require coordination to protect these resources. At the least, this should be a Cooperative Management Area, but the level of importance of the resources indicates that an ACEC would be a more appropriate designation.*

Comment 1139 (Center for Biological Diversity et al.): *Walter's Camp ACEC. This area should be designated an ACEC because it combines a variety of significant resources of more than local significance. It has cultural resources, including the Xam Kwitcam creation trail. From our understanding of River Yuman prehistory, this trail is of great significance to all*

Yuman-language speaking groups along the Colorado River because the origin of all these peoples is believed to be in Avikwame, now also known as the Newberry Mountains in Nevada. The area also has significant natural resources, including microphyll woodland and rare riparian and wetland habitat, important for the endangered Yuma Clapper Rail and other waterfowl. Migratory songbirds utilize Walter's Camp as part of the Pacific Flyway. The area also contains nesting habitat for the southwest willow flycatcher. As the Pacific Coast has lost more and more migratory bird habitat, the Colorado River has become increasingly important to migratory birds that utilize this flyway. The area is bordered by National Wildlife Refuges on both ends, and designation as an ACEC under proper management will help prevent destructive OHV use of not only the Walter's Camp ACEC but the adjacent wildlife refuges as well.

***Comment 518:** Special area designations are vital tools to ensure that the rare features of the Palomas Plain and other tracts remain for the future and I urge the BLM to employ special area designations across the broadest area possible in the final plan.*

***Comment 62:** Incorporate the provisions in Alternative D which would include 670,500 acres of ACECs – and includes enhanced cultural resource protection. One area under consideration is the Palomas Plain located between the Eagletail Mountains Wilderness and the KOFA National Wildlife Refuge.*

Response: ACEC designations highlight areas where special management attention is needed to protect important natural and cultural resources. BLM relied on existing and new information to determine whether the identified relevant and important resources were sufficient to warrant protection. The BLM used the best information available from cultural resource, plant, and wildlife inventories to develop the boundaries of the proposed ACECs included in the PRMP/FEIS. An ACEC Evaluation Report can be found in Appendix 2-A which identifies the special management attention needed for each area proposed as an ACEC under the Proposed Plan. Appendix 2-A also describes other management prescriptions which would provide adequate resource protection for areas not proposed as ACECs in the Proposed Plan.

Subconcern: Grazing

***Comment 970:** For livestock grazing: use A & B, not C & E. Forget D.*

Response: The Proposed Plan reduces the number of acres available for grazing based on the lack of use for the past thirty years.

Subconcern: Wilderness Characteristics

***Comment 1106 (Center for Biological Diversity et al.):** Impacts to Air, Soil, and Water Resources: The allocation of all units for protection of wilderness characteristics in alternative D would have a quantifiable positive affect on air, soil, and water resources by limiting motorized trail and road development as well as other surface disturbing activities. In the Environmental Consequences section on page 4-67 it is stated that there are 205 miles of known motorized routes in areas identified with wilderness characteristics for Alt D, closure of these routes would have a positive influence on air, soil, and water quality and this should be*

disclosed in the environmental consequences sections for these resources.

Response: Alternative D of both the DRMP/DEIS and PRMP/FEIS propose to designate 56,600 acres of lands identified to maintain wilderness characteristics as Closed OHV Management Areas. None of the alternatives in either the DRMP/DEIS or PRMP/FEIS proposed to designate all lands identified to maintain wilderness characteristics as Closed OHV Management Areas, which would close the 205 miles of inventoried routes in these areas. Therefore, the beneficial impacts to soil, air, and water resources from such a closure have not been included in the PRMP/FEIS. The beneficial impacts from Closed OHV Management Areas proposed under the different PRMP/FEIS alternatives to the resource values of the public lands are found throughout Chapter 4.

C. NATURAL RESOURCES MANAGEMENT

1. General Management

Comment 163: *Please take good care of our desert.*

Comment 51: *There is already too much emphasis on activities that degrade our public lands -- off road vehicles, livestock grazing, and mining are just a few. Protecting the public's resources for future generations is imperative.*

Comment 653: *The abuse of America's resources by the corporations and the government agencies that permit these atrocities has got to stop. This includes commercial and/or corporate ranching, mining, logging, development, land development and many other corporate concerns. The escalation of the abuse or our lands and laws since January 2001 is far worse than any period in this century.*

Response: The Proposed Plan of the PRMP/FEIS provides a balanced approach allowing for protection of the quality of natural resource values while offering a range of uses authorized under FLPMA.

2. Analysis

Public Concern 1: Cumulative Effects

Subconcern: Limitrophe

Comment 1074 (National Wildlife Federation): *The impacts of the Yuma RMP must be considered in light of the Environmental Assessment of the Lower Colorado River Drop 2 Storage Reservoir Project (Drop 2 EA). Recognition and description of the Drop 2 EA must be added to the Yuma RMP. See 40 C.F.R. 1502.16(c). 1506.2(d). BLM must assess the Drop 2 EA and disclose any possible conflicts between it and the Yuma RMP.*

The proposed Drop 2 Reservoir has potentially significant impacts to habitat quality and wildlife, including threatened and endangered species, in the Lower Colorado River Limitrophe. The proposed Drop 2 Reservoir also has potentially significant impacts to recreation, cultural

resources, Indian Trust Assets, and other resources in the Limitrophe. The Yuma RMP should address this information in regards to the Drop 2 Reservoir as well as any conflicts between the goals of the Drop 2 EA and the projected effects of the Yuma RMP on Limitrophe natural and cultural resources. Similarly, the Yuma RMP should analyze the potential cumulative impacts related to the IBWC's proposed channel dredging project in the Limitrophe to address flood concerns. IBWC's dredging plans could contribute to habitat loss and this should be addressed in conjunction with BLM's proposed management plans for the Limitrophe.

Response: The PRMP/FEIS analyzed the cumulative impacts of other agency actions on the quality of the environment in the Limitrophe area of the lower Colorado River. As you point out in your comment, public lands in the Limitrophe area are subject to actions taken by numerous other jurisdictions. No single agency has complete jurisdiction over management of the area and all of these actions must be considered cumulatively.

3. Physical Elements

Public Concern 1: Air Quality Management

Subconcern: Off Highway Vehicle Use (OHV)

Comment 1162 (EPA): *OHV travel can result in an increase in concentrations of particulate matter less than 10 microns in diameter (PM10) not only when vehicles are in use, but also after the cessation of activity, due to the physical disturbance of soils and resulting erosion. The Bureau of Land Management (BLM) has designated 400 acres at Ehrenberg Sandbowl as an open OHV Management Area. The Preferred Alternative E would open an additional 2,000 acres of public lands to OHVs, increasing the potential for impacts to air, soil, vegetation, wildlife, and cultural resources. The Preferred Alternative E includes expanding the Ehrenberg Sandbowl (800 acres) and opening the Blaisdell OHV Management Area (1,300 acres), and the Martinez OHV Management Area (300 acres; table 4-3; pg. 4-8). The two proposed Open OHV Management Areas are located within a PM10 non-attainment area and currently have numerous existing routes (pg. 4-8; table 4- 3). The DEIS states that it is unknown if increased dust emissions would occur as a result of this action because of existing use in the areas (pg. 4-8)*

EPA recommends that BLM consider selecting Alternative D as the preferred alternative, which does not include opening new OHV Management Areas within PM10 non-attainment areas. Under Alternative D, OHV use would only be permitted in the Ehrenberg Sandbowl OHV Management Area (400 acres), which is located outside of the PM10 non-attainment area. If additional open OHV areas must be designated, EPA recommends that BLM prohibit expansion in PM10 non-attainment areas.

Response: The Proposed Plan of the PRMP/FEIS does not propose to designate the 1,300-acre Blaisdell Open OHV Management Area, the 300-acre Martinez Lake Open OHV Management Area, or the 800-acre expanded Ehrenberg Sandbowl Open OHV Management Area. This would preclude any potential impacts to air quality, soils, vegetation, wildlife habitat, and cultural resources from authorizing cross-country OHV travel throughout these 2000 acres of

new Open OHV Management Areas. Under the Proposed Plan, cross-country vehicle travel would continue to be authorized within the existing 400-acre Ehrenberg Sandbowl Open OHV Management Area, which is not located within a PM_{10} non-attainment area. The DRMP/DEIS erroneously identified that the proposed Martinez Lake Open OHV Management Area is located within a PM_{10} non-attainment area, which is not the case. Maps 3-1, 2-9b, and 2-9c clearly indicate that the proposed Martinez Lake Open OHV Management Area is outside of the PM_{10} non-attainment area.

Comment 1164 (EPA): *EPA recommends that the BLM fully evaluate current OHV usage in regulated and non-regulated areas; estimate PM10 emissions from OHV use; and address permitting and enforcement efforts. BLM can evaluate the consequences of OHV management decisions if baseline conditions have been established initially. This information should be included in the Final Environmental Impact Statement (FEIS).*

EPA recommends that BLM adopt general mitigation measures to reduce OHV impacts on air quality, especially in areas of non-attainment: 1) motorized competitive races should not occur in PM10 non-attainment areas; 2) BLM should prohibit all OHV use in the PM10 non-attainment areas on high pollution days as forecasted by the Arizona Department of Environmental Quality; 3) use gates, fences, and other barriers to minimize emissions/fugitive dust; and 4) require permits to manage OHV use.

Response: The Proposed Plan of the PRMP/FEIS does not propose to designate any Open OHV Management Areas within a PM_{10} non-attainment area. Many of the suggested mitigation measures for OHV management are considered implementation-level decisions. The YFO encourages participation in subsequent Travel Management Plans to provide suggestions on how the BLM can minimize impacts to air quality through travel management decisions.

Public Concern 2: Water and Watershed Management

Subconcern: Water Quality and Quantity

Comment 1430 (Quechan Tribe): *The Draft RMP provides little discussion of any impacts that the plan will have on water use over the coming years. The DEIS acknowledges that the area surrounding BLM lands is growing population, especially in the Yuma metropolitan area and along the Interstate 8 corridor. The DEIS should further address how its plan will minimize impacts to quality and quantity of water in the Colorado and Gila River basins. BLM must also ensure that any activities authorized by BLM do not interfere with or impair in any way the senior water rights of the Quechan Tribe. For example, any additional water needs that result from BLM's resource management activities must be offset by reductions in water use elsewhere, i.e., by retirement of agricultural lands or additional water conservation.*

Response: The YFO would minimize impacts to water quality of the Gila and Colorado rivers by allocating them as WHAs. The Desired Future Conditions, Management Actions, and Administrative Actions for this allocation would reduce the likelihood of sedimentation and degradation of these waters. As a multiple-use agency, BLM does allow for agricultural leases, but these leases are subject to the terms and conditions. Some of these stipulations include BMPs for herbicide use and the requirement for the lessees to obtain their own water right (separate

from BLM) for their agricultural production.

With regards to water quantity, BLM has a consumptive use agreement for 4,010 acre-feet of water to support its recreation and resource management programs on BLM-administered lands in both the YFO and the Lake Havasu Field Office which was granted through a Secretarial Reservation and Federal Register Notice. The current uses of this water right include concession management, recreational sites, and restoration projects. The BLM would continue to use the appropriated 4,010 acre-feet of water for these allowable uses. No impact on the water rights of any other group is expected from implementing any of the alternatives included in the PRMP/FEIS.

Comment 1431 (Quechan Tribe): *The Tribe will also object to any BLM proposal that threaten[s] to interfere with water quality within the Reservation, or that could result in damage to nearby riparian habitats. BLM must notify the Tribe of, and seek government-to-government consultation on, any site-specific proposals that could affect water quantity or water quality in the lower Colorado River.*

Response: BLM has no authority over water quantity, effects, or changes. Actions that would affect water quality could occur on a site specific basis and BLM would consult with Tribes on implementation level decisions required by NEPA and NHPA, which are outside the scope of this RMP. Examples of implementation level decisions that could affect water quality are riparian habitat restoration projects, integrated pest management treatment of giant salvinia, an aquatic weed, or constructing recreational facilities within the Colorado River floodplain.

Subconcern: Wildlife

Comment 998 (ADWR): *P. 4-39, 4.4.4 Flash floods are part of natural dynamic ecosystem processes and are typically not negative events for wildlife.*

Response: The language in the PRMP/FEIS has been edited to remove the word "flash floods" from the sentence in Section 4.4.4.

Comment 443: *There is a need to protect the water supply for animals at Dripping Springs.*

Response: The water at Dripping Springs most likely comes from a fissure in the bedrock, allowing water to seep in from the underground aquifer. Management Actions for the proposed Dripping Springs ACEC would help protect the water supply.

Comment 989 (ADWR): *P. 2-64, Yellow-Billed Cuckoo Management Actions. Maintaining permanent water between cuckoo breeding areas along the Gila may be difficult. Any water management activity must consider water rights and accounting.*

Response: The phrase "permanent water and" has been removed from the Management Action in Section 2.8.2, because it is unrealistic for BLM to acquire the volume of water rights to reach such a goal.

Comment 1357 (AGFD): *Page 2-52, 2.7.2 D Desired Future Conditions, RMP Statement-None:*

We recommend adding a bullet to state: Maintain desert washes in Proper Functioning Condition.

Response: No procedures for Proper Functioning Condition of desert washes are available in current BLM guidance. Desert washes are not included in the BLM definition of "riparian" in accordance with Technical Report 1737-16, Riparian Area Management (USDOI BLM 1999).

4. Biological Elements: Wildlife/Animals Management

Public Concern 1: Wildlife/Animals Management General

Comment 1186 (Arizona Desert Bighorn Sheep Society): *At a minimum we would request that the RMP clearly identifies the full compliment of wildlife management activities was a priority use within the planning area and especially applicable to any MWC [lands maintained with wilderness characteristics] land allocation, ACEC designation, SHA or primitive area. Based on our past experience this intent needs to be written in crystal clear language and we will be looking for it to be contained in the final RMP document. We truly wish to avoid any misinterpretation in the future.*

To this end we have studied each word and phrase contained in Environmental Consequences paragraphs 4.10 and 4.11 and found no glaring anomalies or contradictions. These sections do not, however, resolve the potential conflict between wilderness preservation and wildlife conservation when an activity is proposed and a decisional hierarchy is needed.

Response: The management prescriptions identified in the RMP for lands with wilderness characteristics and ACECs would not adversely affect wildlife management activities, and some prescriptions would actually benefit wildlife management activities. Throughout the PRMP/FEIS there are Management Actions associated with the Proposed Plan that ensure and enhance wildlife management and conservation activities.

Comment 344: *Why hadn't you minimized or relocated the mountain lions in this area to help the population of sheep to grow. I believe these predators have more to do with the number of sheep than closing trails forever.*

Response: BLM's goal is to manage habitat to sustain healthy populations of wildlife. The AGFD manages relocations of wildlife but BLM would work closely with AGFD if wildlife relocations were planned.

Public Concern 2: Adequacy of Analysis

Comment 997 (ADWR): *Effects of disturbance of wildlife from human presence after extension of the Betty's Kitchen Trail should be discussed.*

Response: Broad negative impacts to wildlife from recreation management are discussed in Chapter 4, Section 4.4, Fish and Wildlife. BLM specifically addressed the impacts of the Betty's Kitchen NRT to southwestern willow flycatcher in our Biological Assessment for the DRMP/DEIS. The proposal to extend the Betty's Kitchen NRT was dropped from the Proposed

Plan in the PRMP/FEIS.

Comment 1384 (AGFD)*: Page 4-28, 4.4, 1st set of bullets, RMP Statement-None: The Department recommends adding a bullet that states: Management decisions, allocations, or designations that conflict with wildlife management.*

Response: The document was not changed as a result of this comment. Impacts of individual Management Actions for implementation-level decisions would be evaluated through the NEPA process on a case-by-case basis.

Comment 1142 (Center for Biological Diversity et al.): *The DRMP/DEIS does not sufficiently analyze, direct, secondary, and cumulative effects of the proposed action on listed and special status species. For example, the DRMP/DEIS lists, but does not elaborate upon the management plans impacts to federally-listed species such as the bald eagle, California brown pelican, Gila topminnow, bonytail chub, desert pupfish, Mojave desert tortoise, razorback sucker, Sonoran pronghorn, southwestern willow flycatcher, Yuma clapper rail, and yellowbilled cuckoo. See DRMP/DEIS 2-55 through 2-64. The DRMP/DEIS also lists state-sensitive species, and yet, there is no meaningful discussion of the secondary and cumulative impacts to these species from the project or from related projects. The final RMP should properly identify and analyze direct, secondary, and cumulative impacts to the biological resources that will be impacted by the project, in compliance with the National Environmental Policy Act (NEPA). Further, the information in the DRMP/DEIS is insufficient to inform an adequate Section 7 consultation as required by the Endangered Species Act.*

Comment 126: *I request that you please ensure your management plans protect the habitat of both Mojave and Sonoran desert tortoises, flat-tailed horned lizards, desert bighorn sheep, and other wildlife of the region.*

Response: BLM analyzed the effects of the RMP on special status species in Section 4.4.2 of the PRMP/FEIS. In the DRMP/DEIS, BLM analyzed the impacts in broad terms, but more detailed and specific impact analysis was done for the Biological Assessment as part of formal consultation with USFWS. USFWS will issue a Biological Opinion prior to the BLM signing the ROD for this PRMP/FEIS. The Biological Opinion will be available online at the USFWS Arizona Ecological Services' website.

Public Concern 3: Agency Coordination

Comment 1350 (AGFD): *Page 2-41, 2.7 Fish and wildlife, RMP Statement- BLM supports the AGFD's Arizona Comprehensive Wildlife Conservation Strategy (AGFD 2006) …AGFD's Wildlife Management Program Strategic Plan for the Years 2001-2006 (AGFD 2001) would also guide management actions. Please change to read: BLM supports the AGFD's Arizona Comprehensive Wildlife Conservation Strategy and subsequent State Wildlife Action Plan. Please change to read: …AGFD's Wildlife Management Program Strategic Plan would also guide management actions.*

Response: The introductory paragraphs of Section 2.7 Fish and Wildlife Management have

been revised in the PRMP/FEIS to add AGFD's Arizona Comprehensive Wildlife Conservation Strategy and subsequent State Wildlife Action Plan. A sentence stating that AGFD's Wildlife Management Program Strategic Plan would also guide management actions has also been added to the PRMP/FEIS.

Comment 1354 (AGFD): *Page 2-43, 2.7 Administrative Actions, RMP Statement-None: We recommend adding a bullet that states: Cooperate with AGFD and CDFG to conduct wildlife surveys, research, and other management actions.*

Response: The requested Administrative Action has been added in Section 2.7.

Public Concern 4: Wildlife Structures

Comment 343: *Why haven't more windmill and metal roof collecting tanks been installed. This area is an extremely dry area. Any wildlife in this area can only survive if it has ample rain for the vegetation. It seems drought has more to do with the population of sheep and all wildlife than closing of any trail permanently.*

Response: Chapter 2, Section 2.7, Management Actions, of the RMP allows for the construction of wildlife waters. Such projects would be considered on a case-by-case basis.

Comment 1351 (AGFD): *Page 2-42, 2.7 Desired Future Conditions, last bullet, RMP Statement-Natural wildlife waters: The Department request clarification that we have the ability to maintain and repair tinajas/springs that have already been modified for wildlife and have the ability to modify natural tinajas/springs for wildlife.*

Response: The PRMP/FEIS has been revised to clarify that unmodified tinajas and springs would remain in their natural state. The Desired Future Condition in Section 2.7 of the PRMP/FEIS states "Natural wildlife waters, such as unmodified tinajas and Dripping Springs, would remain in their natural state unless they pose a threat to wildlife safety. Such waters are essential for ecological integrity and promote biological diversity." This implicitly allows for maintenance of previously modified springs and tinajas for wildlife water use.

A second sentence was added in the PRMP/FEIS to allow minor modifications as follows: "Any modifications to unmodified tinajas would be minimal to allow trapped animals to escape (i.e. stairs or escape ramps), and would be analyzed through site-specific NEPA."

Comment 1353 (AGFD): *Page 2-43, 2.7 Management Actions, RMP Statement-None: The Department recommends adding a bullet to state: Limit use of roads near wildlife waters when visitation is adversely impacting wildlife use of the water.*

Response: The compatibility of road usage near wildlife waters will be determined in future Travel Management Plans.

Comment 1196 (Arizona Desert Bighorn Sheep Society): *We are particularly concerned with realizing the impacts to wildlife water developments within the various TMAs and RMZs and would like to see an accurate analysis provided in the final RMP. For the record we would hope that the final RMP would maintain 1) reasonable vehicle based motorized recreational access on*

existing roads and trails, 2) a continuation of dispersed vehicle based undeveloped camping without designated sites and 3) no obstacles presented to active wildlife management and conservation activities.

Response: BLM will continue to coordinate with AGFD, managers of wildlife water catchments within the planning area, during the development of future Travel Management Plans to ensure they can complete their agency mission. The general public will also be invited to participate in future travel management planning. Except within proposed ACECs, SCRMAs, Closed OHV Management Areas, and along the Anza Trail, the PRMP/FEIS is proposing to allow dispersed vehicle-based camping up to 100 feet off of routes within the planning area.

Public Concern 5: Invasive Animals

Comment 988 (ADWR): *P. 2-60. Razorback sucker, Management Actions. It is not clear where the BLM would "control problematic non-native fish." The efficacy of such an endeavor on the Colorado River is likely low. Also, land ownership should be considered because state sovereign lands underlie the Colorado River.*

Response: The interdisciplinary team considered this comment and changed the document to reflect your concern. Section 2.8.1 E, Management Action #1 has been revised as follows: "Support efforts to control fishes, where feasible"

Public Concern 6: Special Status Animal Species

Subconcern: Bighorn Sheep

Comment 1147 (Center for Biological Diversity et al.): *Camping, hiking and ORVs have been shown to negatively influence the distribution and activities of bighorn sheep (Bear and Jones, 1973). Bighorn are a particular species of concern because research suggests that, "Of the ungulate species for which relationships with humans and disturbance have been reported, the bighorn sheep appears to be most susceptible to detrimental effects (Canfield, 1999)." The largest threats to sheep are loss of habitat and harassment that results in increased stress and a destructive physiological response.*

Multiple studies have corroborated these findings and recommend that regulations to control ORV use and other human activities in sheep habitat are needed (Dunaway 1971; Geist 1971; De Forge 1976; Stemp 1983; King 1985; King and Workman 1986; Krausman and Leopold 1986; and Harris et al. 1995). For example, implementing road or trail restrictions or education programs to reduce human intrusions into areas where desirable and productive bighorn sheep habitat is limited. MacArthur et al. (1982) suggest that limiting human activities to roads and established trails in places where sheep ranges and high recreational use areas overlap can also abate the impacts of disturbance.

The DRMP/DEIS should identify key areas for bighorn recovery and address the direct and indirect impacts of the planning activities to this species. Anything less fails NEPA.

Response: Bighorn sheep recovery is under the jurisdiction of the AGFD. BLM has worked cooperatively with the AGFD to identify wildlife habitat management areas for bighorn sheep in the planning area.

Comment 1380 (AGFD): *Page 2-152, 2.21.3 D Biological Treatment, RMP Statement-None: We recommend adding a bullet that states: Domestic sheep and goats will not be used within nine miles of bighorn sheep habitat.*

Response: The following Management Action has been added to the PRMP/FEIS, Section 2.7.1.B Big Game: "Comply with BLM guidelines to prohibit domestic sheep and goat grazing within nine miles of desert bighorn sheep habitat to avoid disease transmission according to IM 98-140 Revised Guidelines for Management of Domestic Sheep and Goats in Native Wild Sheep Habitat."

Subconcern: Desert Tortoise

Comment 1146 (Center for Biological Diversity et al.): *The Mojave Desert tortoise is a federally-listed threatened species that occurs in the planning area. Despite the DRMP/DEIS's acknowledgement that there should be no net loss in the quality or quantity of Category I or Category II habitat within the planning area, no quantifiable estimation of where such habitat exists is present in the DRMP/DEIS. Without specifically describing the occurrence of the Mojave Desert tortoise within the planning area, or its potential and current habitat, it is impossible for the reader to know the impacts and cumulative effects of the preferred alternative to the species. Of particular importance are the route-designation, off-road vehicle authorizations, and livestock grazing in the habitat within the project area; the final RMP should specifically map and describe tortoise habitat and these effects.*

The desert tortoise, Gopherus agassizii, is listed as a threatened species at both the federal and California state level. Despite this, ORV use is one of the least studied, yet most detrimental factors affecting the survival and abundance of tortoises (Bury and Luckenbach, 2002). Two studies comparing paired plots suggest that tortoises suffer most from both direct and indirect effects of ORV use in areas with low to moderate ORV use (Bury et al. 1977, Bury and Luckenbach 2002). In 1997, Jennings studied the effects of off-road vehicle use on the food preferences and habitat use of the desert tortoise. Washes and washlets are important components of tortoise habitat because they allow for easier travel, they make ideal spots for burrows, and they contain abundant and important food sources (Jennings, 1997). In terms of off-road vehicle use, preference for this habitat proved detrimental; tortoises were more susceptible to direct hits by ORVs because they preferred habitats similar to those of ORV users: hills, washes and washlets (Jennings, 1997).

Response: The PRMP/FEIS includes a map depicting Mohave desert tortoise habitat throughout the planning area (see Map 3-9). Proposed areas available for livestock grazing are all outside of Mohave desert tortoise habitat. In addition, there are no proposed Open OHV Management Areas in desert tortoise habitat. Impacts from individual routes on desert tortoise will be analyzed in Travel Management Plans which are not part of this RMP.

Comment 1359 (AGFD): *Page 2-59, 2.8.1 D, Administrative Actions, 1st bullet, RMP*

Statement- All surface disturbing projects…: the Department recommends clarifying or quantifying what is meant by "surface disturbance" throughout the document. Restrictions on "surface disturbance" could be far-reaching or overly restrictive since almost any activity on the land will create some level of "surface disturbance".

Response: Section 2.8.1 D on the Mojave desert tortoise of this PRMP/FEIS has been updated. The Administrative Action was changed to a Management Action which now states: "All surface disturbing projects authorized by the BLM would be located in previously disturbed areas or outside of Mojave desert tortoise habitat. When at all possible projects would avoid habitat; if avoidance is not possible, other types of mitigation would be required. If a desert tortoise is found in a project area, activities should be modified to avoid injuring or harming it." The term "surface disturbance" would only apply to activities that require authorization by BLM, and would not apply to all activities that occur on the public lands. The term "surface disturbance" has been clarified throughout the PRMP/FEIS.

Subconcern: Threatened and Endangered

Comment 1119 (Center for Biological Diversity et al.): *Palomas Plain WHA and Sonoran pronghorn. The analysis and preferred alternative in the DRMP/DEIS relative to historic habitat for Sonoran pronghorn falls short of providing the appropriate management direction. The current area that is managed for Sonoran pronghorn has seasonal closures to vehicle travel, but is severely and negatively affected by border enforcement activities. The Yuma East region is a potential reintroduction site for the species, which provides the BLM an opportunity to greatly assist in the recovery of this species. The Ranegras Plain, Palomas Plain and others areas could be managed for successful reintroduction and this should be more fully analyzed in the FEIS. What types of management actions would be necessary if this scenario did occur? Would a seasonal closure be necessary? Would closure of only some vehicle routes be effective for long term management? Considering the sensitive nature of this critically endangered species, a closure to vehicular access all together might also be beneficial. We think BLM has an outstanding opportunity to be the lead agency in the recovery of an endangered species and foresight should be used to think about the implications of BLM's future management of the Yuma East area.*

Response: At this time BLM is not evaluating the potential for reintroduction of Sonoran pronghorn. This does not preclude the possibility of reintroductions on BLM-administered lands in the future. The PRMP/FEIS does propose protections for the Yuma East region with the idea that this area may be used for Sonoran pronghorn introduction. The Palomas Plain WHA would be a step toward making reintroductions possible. Any future considerations for reintroductions would result in NEPA analysis. Seasonal closures, etc. would be implementation level decisions.

Comment 1145 (Center for Biological Diversity et al.): *The Sonoran pronghorn is a highly imperiled endangered species that occurs in the planning area, albeit with a smaller range and with fewer individuals than in historic times. Extraordinary measures have been implemented to recover this species, but the small population may require even more intensive management in order to be sustained. The DRMP/DEIS fails to sufficiently analyze the impacts of the proposed management on this species, including, but not limited to, the cumulative effects of the border*

infrastructure that exists and is proposed for the Yuma planning area. The BLM should consider the recovery of this species and the potentially occupied habitat, as well as the reintroduction potential of areas within the planning area, and the potential reintroduction areas should be managed with recovery in mind (i.e. no motorized routes, livestock, etc).

Response: Analysis of impacts to Sonoran pronghorn for those lands within the planning area can be found in Sections 4.4.1 and 4.4.2 of the RMP. The BMGR falls within the planning area; however, this area is outside BLM-administered lands. The effects to Sonoran pronghorn by actions of other agencies are considered in the cumulative effects section of the PRMP/FEIS.

Comment 1144 (Center for Biological Diversity et al.): *The DRMP/DEIS makes no mention of the Yuma Desert flat-tailed horned lizard Management Area despite the fact that the Yuma planning area encompasses this area, on and adjacent to the Barry Goldwater Range, the only designated flat-tailed horned lizard conservation area in Arizona. The lizard is also found sporadically throughout the area managed under the Yuma RMP. BLM's failure to adequately consider the impacts of the RMP renders the environmental review completely inadequate. In order to comply with NEPA, a thorough examination of the direct, indirect, and cumulative impacts of BLM's proposed RMP on the flat-tailed horned lizard should be part of a comprehensive EIS for the proposed project.*

The flat-tailed horned lizard is of particular concern because, though the RMP identifies this species as state-sensitive, it is also candidate for listing under the Endangered Species Act, due to its downward trend under the current conservation agreement. A recent court decision found that withdrawal of the proposed rule to list the Flat-tailed Horned Lizard by the Secretary of the Interior was arbitrary and capricious and the Court set aside the withdrawal. See Order, Tucson Herpetological Society, et al., v. Norton, et al., Case No. CV 04-0075–PHX-NVW. The reinstatement of the listing rule was then withdrawn again and that issue is now again before the Court. If the court again reinstates the listing rule the BLM would be required to confer with the U.S. Fish & Wildlife Service regarding the direct, indirect and cumulative effects of the project on the lizard.

Even absent any reinstatement of the proposed listing rule or listing of the species, BLM must consider the impacts of the proposed RMP on this species.

The DRMP/DEIS also fails to adequately consider the recovery of the flat-tailed horned lizard, a highly imperiled species facing numerous threats throughout its range and within the planning area. These threats, generally but by no means exhaustively, include:

- *Yuma Area Service Highway, as proposed, would cut through flat-tailed horned lizard habitat south and east of Yuma destroying over 600 acres of lizard habitat and isolating another 3,600 acres of habitat;*
- *Energy Proposals for W. Imperial County threaten flat-tailed horned lizard habitat, including energy plans and power lines;*
- *Border enforcement activities impact lizard habitat near the US-Mexican border due to off-road driving by agents and smugglers, Border Patrol 'drag roads' and other infrastructure projects;*
- *Off-road vehicles near the Algodones Dunes, and near Yuma, is currently problematic and*

projected to increase;

- *Urban sprawl in the remaining habitat in Coachella Valley is increasing and habitat is being lost; and*
- *• Invasive non-native plant species & wildfire alter fire regimes and destroy flat-tailed horned lizard habitat.*

- *The flat-tailed horned lizard is listed in the draft plan as a special status species, but parcels of the species' remaining habitat is described as "fragmented and unlikely to support this species," (p 4-36) and therefore eligible for disposal under the preferred alternative. The disposal habitat is designated as "historic," but the BLM should be considering if it is also future potential habitat as well and needed for species recovery. Further, listing these properties as appropriate for disposal undermines the stated desired future conditions of "Minimize the loss or degradation of flat tailed habitat and maintain or establish effective habitat corridors between naturally adjacent populations." See DRMP/DEIS page 2-67. The final RMP should overlay the habitat of the species with the proposed disposal lands so that the decision-makers have adequate information to evaluate the projects. The final RMP should also clearly identify the extent within the project area of the threats to the species, including those listed above, and assess the cumulative impacts of the preferred alternative on the species' recovery.*
- *Routes, trails and the use of off-road vehicles can create barriers to necessary movement (i.e., movement for migration, breeding, foraging). Studies have found a higher proportion of dead frogs and toads on roads with higher traffic volumes. Although this may result from higher direct mortality, it may also occur because traffic changes movement patterns and interrupts anuran behavior (Fahrig et al. 1995). Nicolai and Lovich (2000) found that disturbance from off-road vehicle activity decreased the rate of movement of flat-tailed horned lizards (Phrynosoma mcalli), a Species of Special Concern in California. Decreased movement coupled with the fact that they are often found on roads, makes this species and others disposed to road mortality. Other studies have found that ORV activity destroys large areas of habitat occupied by flat-tailed horned lizards (Lovich and Bainbridge 1999) and may modify the way this species, and others, use habitat (Beauchamp et al. 1998).*

Response: The Yuma Desert Management Area for the FTHL is described in Section 3.4.7 B, Species of Concern. The BLM does not have any jurisdiction on the lands within the Yuma Desert Management Area for the FTHL. The Yuma Desert Management Area for the FTHL is administered by BGMR and Reclamation. The BLM is committed to conservation of the FTHL through the FTHL Rangewide Management Strategy (RMS). The BLM YFO has been in full compliance with the RMS since its inception in 1997. Moreover, BLM has required proponents to follow stricter mitigation measures often reserved for projects within the Yuma Desert Management Area. BLM is making an effort to keep potentially occupied FTHL habitat in Federal ownership; a 337-acre parcel of contiguous historic FTHL habitat was originally designated for disposal in the previous RMP, but BLM has not carried-over that decision to the Proposed Plan.

All but the threat by non-native invasive species you mentioned in your comment are either outside the boundaries or outside the management responsibilities of the BLM YFO. *Schismus* spp. is the primary non-native plant within FTHL habitat on BLM-administered land in Arizona.

Schismus may compete with native grasses, but there is no practical way to control this essentially naturalized species. Morever, *Schismus* does not seem to seriously impact FTHL as FTHL are often found in habitat abundant with *Schismus. Schismus* does not spread fire effectively on BLM-administered land in Arizona.

BLM manages primarily low-quality habitat in the planning area. There are five reasons that the YFO believes that the lands identified for disposal within FTHL habitat are not suitable for reintroductions of FTHLs: (1) canals, roads, and urban sprawl fragment FTHL habitat into isolated habitats, which could prevent FTHL re-colonizations from higher-quality habitat; (2) adjacent land uses such as agriculture promote artificially large numbers of FTHL predators (for example, round-tailed ground squirrels and greater roadrunners); (3) humans often illegally litter, dump, or travel off-road on these parcels, which is likely to degrade habitat quality for FTHLs; (4) components of good-quality FTHL habitat in Arizona (big galleta grass, sandy hummocks, loose sand) are often missing from many of these BLM parcels; and (5) most BLM parcels are small; the median size of the 10 parcels is 43 acres, which is likely too small to sustain a natural population of FTHL. These five factors are likely to make these parcels unsuitable for reintroductions or re-colonizations. YFO has conducted searches for FTHL on most of these 10 parcels, and have found no FTHL signs (tracks, scat, or individuals).

Although the PRMP/FEIS does not include a map that overlays historic FTHL habitat with proposed disposals, the YFO interdisciplinary team considered this information during alternative development and in the formulation of Chapter 4, Environmental Consequences. The wildlife section in Chapter 4 describes impacts on wildlife from the different alternatives, and this analysis includes impacts to FTHL from OHV use. The primary impact that would affect FTHL as a result of this plan would be from lands identified for disposal. This impact is mentioned in Chapter 4, Section 4.4.2.A.7, Direct and Indirect Impacts, Special Status Species. In addition, impacts to Special Status Species from OHV use can be found in Section 4.4.2.A.6.

Public Concern 7: Off Highway Vehicle (OHV)

Subconcern: Herpetofauna

Comment 1143(Center for Biological Diversity et al.) : *We note that the proposed action fails to account for impacts to herpetofauna. Herpetofauna are very important players in the food web because as a group, they are more abundant, they make-up more biomass and they contribute more significantly to the transfer of energy along the food web than mammals and birds. These creatures have an impact on communities at each stage of their development; amphibian larvae structure aquatic communities, lizards and metamorphosing amphibians provide a link between aquatic and terrestrial food webs and adults play a key role in maintaining the efficiency of terrestrial food webs. Because of these important roles and the fact that amphibians, and some reptiles, serve as indicators of the health of our environment, the impacts of routes and trails and off-road vehicle activity on herpetiles should be a management concern (Welsh and Ollivier, 1998). Off-road vehicle use can lead to the death of reptiles and amphibians due to direct kills, however, the elimination and degradation of vegetation and critical habitat by ORVs has a larger, long-term impact on these animals.*

Compounding the impact of this direct effect, ORVs minimize food sources and suitable habitat

for tortoises by destroying vegetation, disturbing the soil and changing the size and path of washes as traffic causes trails to widen over time (Jennings, 1997). Disturbance and habitat loss from the creation of trails and off-road vehicle activity can diminish the abundance of many amphibian and lizard populations. Luckenbach and Bury (1983) compared lizard densities on plots with ORV use to those without it; on control plots there were 1.8 times the number of species, 3.5 times the number of individuals, and 5.9 times the biomass found on areas with ORV use (Bury & Luckenbach, 1983).

Response: BLM recognizes the importance of reptiles and amphibians in the natural system. OHV impacts to reptiles in general and specific terms are identified in Chapter 4. Reptiles are included in the definition of "wildlife" when OHV impacts to wildlife are described in Section 4.4.1 B.

Public Concern 8: Mining and Mineral Exploration

Comment 1441: *Your laws for protecting wildlife is greatly flawed. We enjoy watching them and most do not run. I think they get used to people being around. What happens to wildlife which live in the mines that are to become active again. Are they ran out or killed?*

Response: BLM makes every attempt to work with the mine claimant and State wildlife agencies to resolve wildlife issues and concerns.

Public Concern 9: Pesticides

Comment 990 (ADWR): *P. 2-65, Burrowing Owl, Management Actions. The authority of the Bureau of Land Management to control spraying of pesticides on non-BLM lands should be clarified. If a restriction is placed on BLM agricultural leases, that impact should be disclosed.*

Response: The information about pesticide use in agricultural leases found in Appendix 2-G.B, b2. "Pesticides shall comply with the applicable Federal and State laws. Emergency use of pesticides shall be approved in writing by the authorized officer". Agricultural lessees are required to provide BLM with a pesticide use plan prior to treatment. Pesticide users are required to follow guidance put forward by the Secretary of the Interior and abide by any State restrictions.

5. Biological Elements: Vegetation Management

Comment 709 (Cocopah Indian Tribe): *Vegetation Management - The preferred alternative is Alternative E. The preferred alternative should include the 12,400 Fred J. Weiler Green Belt.*

Response: The Proposed Plan includes a VHA for the Fred J. Weiler Green Belt. Please see Section 2.5.2 of the PRMP/FEIS.

Public Concern 1: Habitat Improvement or Restoration

Comment 495 (USGS): *Chapter 4, Environmental Consequences, Section C, Habitat*

Enhancement and Restoration, page 4-33. The draft RMP/EIS indicates interest in decreasing the fragmentation of riparian habitat and enhancing ecological integrity. As willow-cottonwood assemblages are habitat for the southwestern willow flycatcher and the project location is within the historic range of this imperiled bird, the USGS offers research results which might aid in the specific habitat requirements of this bird (Allison et al. 2003, Shafroth et al. 2005, Skagen et al. 2003, Sogge et al. 2003, Sogge et al. (editor) 2003).

Response: In BLM's Biological Assessment for the DRMP/DEIS, we mention some of the research results you provided for specific habitat requirements of southwestern willow flycatcher. YFO will continue to consider the best available information, including USGS research, in the development of public land management policies.

Comment 1047 (Yavapai-Apache Nation): *We commend your ongoing efforts to reclaim and sustain habitat along the Colorado River corridor through revegetation. Especially because of the direct benefit to avian species.*

Response: BLM appreciates the support and participation of the Yavapai-Apache Nation in the RMP process.

Subconcern: Limitrophe

Comment 1072 (National Wildlife Federation): *BLM must outline specific strategies and mechanisms to revegetate native plants after clearing invasive species in order to achieve successful restoration of native plant communities and to benefit wildlife habitat and ecological health.*

Response: Vegetation management techniques are provided in the BMPs section of the RMP. Restoration is based on site specific potential, funding, and in the case of the Limitrophe area, employee safety, which is a significant concern. Please refer to Desired Future Conditions for Riparian Habitat (Section 2.5.1 A). A plan for the Limitrophe developed by the stakeholders would address these strategies and mechanisms.

Comment 734 (USIBWC): *Increased management should occur by salt cedar removal and planting in a manner that seedlings reach water that can be used with a water budget that does not impact Colorado River water rights. Surface water availability is unreliable in the Limitrophe Reach.*

Response: BLM would consider self sustaining vegetation plantings such as pole planting when developing restoration strategies. Groundwater in the Limitrophe area is not considered to be Colorado River water and would be available for restoration without affecting a water budget or Colorado River water rights.

Comment 1069 (National Widlife Federation): *We recommend that the BLM explain possible management strategies to the Limitrophe CMA in much greater detail. More specifically, we recommend that BLM include a set of plans and standards for invasive species removal and native species revegetation. These plans and standards should recognize and reflect the current science and protocol for riparian restoration...Moreover, invasive control/removal and native*

restoration must aim for the requisite components of high quality habitat: structural diversity, large biomass, high biodiversity, connectedness, and nearness to water. In short, BLM plans for the Limitrophe CMA should utilize active restoration techniques to convert non-native vegetation to native riparian habitat, while maintaining existing native plant species. Active restoration in the Limitrophe CMA would meet the various goals BLM and other stakeholders have for the region, including: fire suppression; maintaining and restoring valuable habitat; protecting wildlife, including threatened and endangered species; invasive species reduction to eliminate illegal activity and increase border security; improvement of public safety and opportunities for recreation; and protection of and access to cultural resources.

Response: In coordination and cooperation with other stake holders (including the National Wildlife Federation), YFO would pursue active restoration in the Limitrophe area given the constraints of funding, employee and contractor safety and the need to address wildland fire and public health and safety. YFO would work with interested parties to develop a strategy which allows for adequate cover, habitat connectedness, etc. Specific management actions would be developed outside of this RMP process in coordination with interested stakeholders. Restoration often relies on availability of supplemental water for establishment of plantings. Some factors may lie beyond BLM's control. BLM will continue to manage lands under BLM authority.

Comment 1347 (AGFD): *Page 2-25, 2.4.2 Management Actions, RMP Statement-None: We recommend adding a bullet that states: Restore degraded or salt cedar habitats to appropriate vegetation when and where practicable.*

Response: The recommended Management Action was added to the PRMP/FEIS in Section 2.4.2 Limitrophe CMA.

Public Concern 2: Fire and Fuels Management

Comment 999 (ADWR): *P. 4-45, "3." It is not clear what natural resources would have higher priority than endangered species in managing a fire.*

Response: In the sentence referred to in your comment, natural resources could refer to a natural process or occurrence present during a fire which limits the ability of firefighters to protect endangered species habitat that is vulnerable to the fire.

Public Concern 3: Firewood Collection

Comment 1298 (Huachuca Hiking club): *On page 2-21, there is a proposed management action that prohibits collection of dead, downed, and detached firewood and vegetative materials inside the Sears Point ACEC. If a designated campground site is established within the ACEC, I suggest the campground site and surrounding area up to ¼ mile be exempted from this management action.*

Response: The proposed wood collection restriction at the Sears Point ACEC was reduced to 3,700 acres in the PRMP/FEIS (see Map 2-1e-3).

Public Concern 4: Noxious and Invasive Plants

Comment 987 (ADWR): *Page 2-31, Vegetation Habitat Management Areas. The value of vegetation to native wildlife should be considered prior to any treatment of invasive species. In the case of the Fred J. Weiler Greenbelt, much of the area was vegetated with salt cedar at the time of designation, supporting significant wildlife use.*

Response: It is recognized that salt cedar comprises the majority of the Fred J. Weiler Greenbelt, and is beneficial to some birds (particularly white winged and mourning dove). All vegetation treatment projects would be analyzed as part of the site specific NEPA analysis.

Comment 994 (ADWR): *p. 3-34, 1. Salt cedar. The likelihood of success in establishing native vegetation should be assessed prior to removal of salt cedar, which does provide wildlife habitat. The story of success along the lower Colorado River over the last 30 years is low.*

Response: As stated in Section 2.5 Vegetation Management, one of the Desired Future Conditions is to maintain and enhance a mosaic of native plant communities in upland and riparian/wetland areas. Unproductive or non-functioning upland and riparian wetland sites would be restored to desired plant communities based on ecological site and capability potential. Factors to consider when evaluating restoration potential of riparian habitat include salinity, depth to groundwater, and soil structure.

Comment 1410 (Reclamation): *Page 3-34, Giant Salvinia 4th line: The statement that the LCR is "both shallow and slow moving" is not entirely correct. Salvinia only gathers along the outer edges of the river. The flow in the middle is too fast for it to gather. 6th line, change to: "…in a relatively short period, doubling in size every 2.5 to 10 days." FYI – Salvinia can cover a 10-acre backwater in less than a month. p. 3-34, last line: Surveys have documented Giant Salvinia all the way into Mexico. p. 3-35, last sentence: Please give example(s), e.g., Arundo.*

Response: The statement on page 3-34 (4th line) of the DRMP/DEIS refers to the common conditions of the lower Colorado River from high water use and low recharge rates. It is not directly referring to the specific site conditions necessary for the invasive giant salvinia to flourish. Section 3.3.7 A.2 of the PRMP/FEIS was revised to read "In areas of low flows, giant salvinia can cover the total water surface in a relatively short period, doubling in area every 2.5 to 10 days. Salvinia can cover a 10 acre backwater in less than a month." This section of the PRMP/FEIS was also revised to read, "Surveys have documented giant salvina in varying degrees of presence from Walters Camp all the way into Mexico."

6. Domestic Livestock Management

Public Concern 1: Grazing Management

Comment 310: *Please change the livestock grazing allowance toward the 0 acres available in Alternative D.*

Comment 1085 (Center for Biological Diversity et al.): *The draft RMP states that grazing management is adjusted during the renewal of grazing leases, but overall grazing parameters*

must be set during the RMP process, and the draft RMP fails to explicitly acknowledge the overarching guidance for this land use that the RMP must provide.

Comment 1088 (Center for Biological Diversity et al.): *Continuous yearlong grazing is not a feasible grazing management strategy on Sonoran Desert public lands, nor is seasonal/ephemeral grazing necessarily appropriate (Hall and Weinstein 2004). Because the draft RMP contains so little information about the allotments within the planning area, it is impossible to evaluate how grazing management might change under each of the alternatives. This lack of clarity fails NEPA.*

Comment 1094 (Center for Biological Diversity et al.): *The characterization of Alternative D (the No Grazing alternative) as having an adverse economic impact "because revenues would no longer be generated by grazing fees…" is unfair and unsupportable. There are potentially five permits that would remain active under the preferred alternative (though the draft RMP does not make clear which allotments these are), and the revenue associated with the appropriate use of these allotments simply cannot outweigh the expense of the irreparable ecological impacts that livestock have in the desert. The grazing fees collected by the BLM do not even begin to cover the costs of managing grazing (GAO 2005). The permits should be retired, permanently, and the BLM should dedicate itself to restoring and protecting these lands, providing for recreation, open space, and ecosystem services that are ultimately more profitable and more sustainable than livestock grazing. The Taylor Grazing Act's goal of stabilizing the livestock industry is "secondary" to the goals of safeguarding the rangeland and providing for its orderly use. Public Lands Council v. Babbitt, 167 F.3d 1287, 1298n.5 (10th Cir. 1999), aff'd, 120 S.Ct. 1815 (2000).*

Comment 64: *Limit livestock grazing to protect cultural and biological resources alike. There is not enough forage to sustain both livestock and the native animals. Grazing has significant detrimental impacts on some species of plants and wildlife.*

Comment 1046 (Yavapai-Apache Nation): *The Nation supports all efforts to minimize grazing of stock animals including wild horses and feral burros during the ongoing drought conditions. We do not question the right of the cattle industry in the western deserts to persist in obtaining leases, only its practicality and the inevitable repercussions to indigenous animals associated with overgrazing.*

Response: Livestock grazing use of public lands is governed by the Taylor Grazing Act of 1934 and FLPMA of 1976. Congress has long recognized that livestock grazing is one of many multiple uses of the public lands. The Arizona Standards for Rangeland Health and Guidelines for Grazing Administration have been established to guide BLM's management of grazing in Arizona to ensure that grazing does not have an adverse effect on the resources. Should livestock use result in impacts that fail to meet the Arizona Standards, the regulations at 43 CFR 4100 require that appropriate actions be taken within a set timeframe to insure that the Standards will be met. Such actions can include adjusting the season of use, adjusting the number of authorized livestock, or other actions that would correct the current situation. Grazing use in accordance with the Arizona Standards and prompt implementation of the grazing regulations would ensure that livestock grazing would not adversely affect public land resources.

Section 2.9 discusses the differences between alternatives (Alternatives A through the Proposed Plan primarily differ by the number of acres available or unavailable for livestock grazing). The decision to be made in this plan, according to the Land Use Planning Handbook H-1601-1 Appendix C.II.B, Livestock Grazing, is to identify lands available or not available for livestock grazing. In order to derive the alternatives presented in the DRMP/DEIS, the interdisciplinary team evaluated the existing livestock grazing situation in the planning area. The DRMP/DEIS included criteria for the designation of Ephemeral Allotments. The criteria would be applied during the completion of new Rangeland Health Assessments. The public lands within YFO are suitable for ephemeral use and can be so used without adverse impacts on the resources. The No Grazing Alternative (Alternative D) would have some moderate to major adverse economic impacts for the few ranch enterprises that currently have access to Federal grazing lands within the YFO. Permittees would, at a minimum, lose their access to BLM grazing allotments. This action would increase the cost of raising livestock for these permittees.

In addition, if grazing were not allowed within the YFO, the BLM is required by regulation to pay the amortized cost for removal of all range improvements owned by the permittee that they do not remove. The permittee can remove any improvements that they own, including fences, wells, pipelines, troughs, and other improvements. Many of the wells and other water developments are also extensively used by resident wildlife. Even if BLM were able to keep wells and facilities at the developments, maintenance of these developments would require additional expenditures. On the basis of historical budgets, BLM would be unable to maintain most if not all of the facilities. Loss of these facilities could result in adverse impacts on wildlife in these areas.

Public Concern 2: Allotments

Comment 1361 AGFD): *Page 2-72, 2.9 Management Actions, RMP Statement-None: We recommend adding a bullet that states: Change the allotment classification or category and/or the lease or permit stipulations or terms and conditions as needed to meet management objectives.*

Response: Section 2.9 on Livestock Grazing Management, Management Action #7, of the PRMP/FEIS provides the BLM with the ability to change grazing allotment categories as needed.

Comment 1080 (Center for Biological Diversity et al.): *Page 3-68 of the draft RMP states that, "there are no strictly perennial permits within the planning area." This statement conflicts with the designations listed on page 3-69 in Table 3-17 that shows at least 6 strictly perennial permits. The table also fails to show the number of livestock authorized on each allotment. The draft RMP contains no maps with the allotment boundaries indicated or the allotments named.*

Response: The document has been revised within Section 3.11.2, Grazing Permits and Leases, to reflect six perennial allotments. The number of livestock authorized on each allotment is based on AUMs. An AUM is the equivalent of one cow for one month. Map 3-15 shows allotment boundaries and allotment numbers.

Comment 1026: *Provide specific data on rangeland forage capacity within the planning areas, breakdowns of available forage types (20% grasses, 30% forbs, 40% shrubs, etc.). List all*

significant rangeland users such as mule deer, pronghorn antelope, elk, bighorn sheep, cattle, sheep, and wild horses and burros. Provide projected management plans and goals for each species, projected habitat requirements, expected rangeland allocations, and population targets. Illustrate in a comprehensive table that clearly delineates numbers, allocations, and projected use levels.

Response: The Rangeland Health Assessments for Dateland, Quartzsite, and Vicksburg (USDOI BLM 2003b, 2003c, 2003d) provide information on the condition of lands available for grazing. These Rangeland Health Assessments analyzed allotments for specific goals and objectives. The Arizona Standards for Rangeland Health and Guidelines for Grazing Administration (USDOI BLM 1997a) and the Special Ephemeral Rule found in Appendix 2-D identifies how grazing would be authorized on BLM lands in Arizona. See Section 3.11.2.C Range Health Assessments for an explanation of how BLM evaluates the ecological condition of resources on allotments and potential impacts of grazing, which are evaluated during the permit and lease renewal process. This methodology has been used for other planning areas in hot desert biomes (e.g., southwest Arizona).

Comment 1093 (Center for Biological Diversity et al.): *The draft RMP states that, "Management that achieves proper utilization of key forage species ensures adequate cover to maintain appropriate watershed conditions and reduce soil loss through wind and water erosion." See draft RMP page 4-13. This very general statement does not assure the reader that livestock grazing will not contribute to soil loss throughout the planning area. This is especially of concern since a number of the allotments in the planning region are "custodial" allotments, which means that "it would not be cost beneficial [on custodial allotments] to attempt to improve current conditions." See draft RMP page 3-69.*

The statement in the draft RMP that "Differences in impacts to water resources between alternatives differ by number of acres open to … grazing, however they are insignificant and minimal overall," (page 4-11) needs to be explained. Any alternative that supports continued grazing anywhere within the planning area differs significantly from Alternative D, which eliminates this land use and would have the most marked and beneficial effect on the water resources of the planning area.

Response: None of the custodial allotments within the planning area have regular grazing use and none are part of the Proposed Plan. Because the custodial allotments are not cost beneficial, none are carried forward in the Proposed Plan. The majority of the water utilized by livestock on allotments carried forward in the Proposed Plan are from wells developed by the permittees.

Comment 1081 (Center for Biological Diversity et al.): *The preferred alternative should permanently withdraw grazing from the allotments in the Dateland area. The draft RMP states that, in this region, "non-use is common and range improvements are generally in poor condition." See draft RMP page 3-69. Intermingled land tenure and poor facilities make grazing management difficult; non-use indicates that grazing is also unnecessary. The preferred alternative should identify all allotments in the Dateland area for closures.*

Response: The DRMP/DEIS Preferred Alternative and the PRMP/FEIS Proposed Plan do not

propose to allow grazing to continue in the Dateland area (see Map 2-5c). The existing grazing allotments in the Dateland area that would be discontinued are represented on Map 3-19.

Comment 1082 (Center for Biological Diversity et al.): *The preferred alternative should close all allotments in the Quartzsite area. The draft RMP admits that at least three of these allotments have been in non-use for twenty years, indicating a lack of need and lack of appropriateness. See draft RMP page 3-70. Use on these allotments is being restricted due to recreational use; the BLM should consider the cumulative effects of all uses and see which authorizations need to be restricted in order to fulfill the agency's stated goals of vegetation and wildlife habitat management. Monitoring data and trend information should be included in the final RMP to justify the use of the Bishop allotment.*

Response: Livestock grazing use is authorized under Arizona Standards for Rangeland Health. An assessment performed in 2003 on the Bishop Allotment found that continued grazing use on this allotment would meet the Standards for Rangeland Health. Additional assessments will occur when the Bishop allotment permit is up for renewal.

Comment 1079 (Center for Biological Diversity et al.): *The draft RMP fails to provide explicit information about the level and extent of livestock grazing currently occurring in the project area. Table 3-17 (page 3-69) lists the allotments within the planning area but fails to identify which allotments are within which of the three planning areas identified on the same page: Dateland, Quartzsite, and Vicksburg. This failure to identify which allotments are where is egregious because it makes the subsequent discussions (pages 3-69 through 3-70) virtually meaningless. Without knowing which allotments are in which planning area, the discussion of resource conditions or land tenure does not help the reader or the decision-maker and this lack of information fails the "hard look," requirement of NEPA. The only map (Map 3-15) that identifies grazing allotment boundaries identifies those by number, which must then be cross-referenced with Table 3-17.*

Response: Table 3-15 identifying "Allotments' Administered and Authorized Use by BLM in the Planning Area" has been updated in the PRMP/FEIS to include the general geographic locations of each allotment, which corresponds with Map 3-19.

Comment 1083 (Center for Biological Diversity et al.): *The draft RMP identifies allotments in the Vicksburg area but fails to indicate if the four allotments referenced by name (Crowder-Weisser, K Lazy B, Calhoun, and Eagletail) are all of the allotments in this area and/or what the condition and trend of these allotments is. See draft RMP page 3-70. The only indication of use levels on the allotments comes from the statement, "With the exception of the Vicksburg area, grazing use in the planning area is a very minor use of the public lands." Id. The reader is left to infer that grazing use on the Vicksburg allotments is therefore intensive, but it remains unclear what the following sentence means: "Recommendations made during standard and guide assessments include retiring grazing on several allotments and reviewing the perennial classification on others." Id. The final RMP should specify which allotments that statement refers to and whether the preferred alternative is following these recommendations.*

Response: The PRMP/FEIS was revised in Chapter 3, Section 3.11.2.A to clarify that *Standards and Guidelines* for all allotments were evaluated in all three areas – Vicksburg, Dateland and

Quartzsite. Further clarification of which allotments would be affected by the decision to make lands available or unavailable in this plan are now found in Chapter 2, Section 2.9.2, using information found in Table 3-17.

Comment 1084 (Center for Biological Diversity et al.): *The draft RMP states that, "For the most part, vegetation communities are noted to be producing at or near potential, and no specific trend was noted for any allotment. All permits were reauthorized with terms and conditions of use." See draft RMP page 3-71. The qualifying statement, "for the most part" indicates that there were exceptions to the productivity and health of the vegetation communities on the allotments, but the BLM reauthorized grazing anyway. It is also worth noting that in previous pages, the BLM clearly states that some of the allotments were in non-use, thereby indicating that the health of vegetation communities may be because of the absence of grazing, not due to the compatibility/sustainability of the use.*

Response: The language in the document has been revised in Section 3.11.2.C. The rangeland health assessments performed in 2003 for allotments indicate all were producing at or near potential, and no specific trend was noted for any allotment. The rangeland health assessments are available for public review.

Public Concern 3: Cryptobiotic Soil Crust

Comment 1091 (Center for Biological Diversity et al.): *Furthermore, grazing has been shown numerous times to reduce or eliminate cryptobiotic soil crusts. These crusts are important for infiltration and stabilization, especially in the arid southwest where many xeric species rely on stored soil water (Brotherson and Rushforth 1983).*

Response: Allotments proposed available for grazing use in the Proposed Plan contain very little cryptobiotic soils. This resource would experience insignificant impacts due to grazing use under the Proposed Plan. All soils are not equal and vary in crust associations and susceptibility to disturbance. Since the BLM has replaced historic, uncontrolled livestock grazing by controlled and managed grazing, it is believed that the stocking rates and livestock densities are such that little impact is occurring to soil crusts. Under this scenario, healing has been observed away from livestock water sources. More information needs to be gathered in specific areas to show if this is still occurring and if impact areas around new waters are increasing or decreasing. This can be accomplished with the implementation of the *Arizona Standards for Rangeland Health and Guidelines for Grazing Administration* (i.e., *Standards and Guidelines*).

Public Concern 4: Riparian Areas and Wetlands

Comment 1089 (Center for Biological Diversity et al.): *Though the draft RMP does not specifically identify the riparian areas present within the allotments which would be maintained as "available to grazing," within the preferred alternative, the draft RMP does state that the desired future conditions for riparian areas as ensuring that "riparian-wetland areas achieve or are moving towards properly functioning condition. Riparian, floodplain, and wetland areas enhance water quality, improve water storage, increase groundwater recharge, and provide quality fish and wildlife values." See draft RMP page 2-27. Livestock grazing undermines each*

of these objectives.

Response: The document was clarified to state that there is no grazing within riparian or wetland areas in the YFO planning area.

Public Concern 5: Watershed Condition

Comment 1090 (Center for Biological Diversity et al.): *Livestock grazing is known to have significant effects on soil and watershed conditions, including directly causing increased soil erosion. The phenomenon has three basic components. Grazing reduces plant cover that binds the soil and, in low desert areas, destroys microbiological soil crusts that stabilize soil surfaces (Beymer and Klopatek 1992, Brotherson, et al. 1983, Brotherson and Rushforth 1983). Vegetation that impeded overland flow of rainfall runoff in intact watersheds was lost to grazing (Sharp, et al. 1964). Grazing livestock compact the soil, so instead of rainfall soaking down toward the aquifer it flows faster and in greater volume overland (Arnold 1950, Johnson 1956; reviewed by Belsky et al. 1999, Jones 2000).*

Eroding soil and manure throughout watersheds end up in streams as increased sediment load, excessive nutrients, and pathogen contamination. Various grazing management strategies have not been found to reduce such watershed degradation (Gifford and Hawkins 1976, Blackburn et al.1982). The effect of the dropping of water tables is stream down-cutting in grazed riparian areas. A number of authors have outlined the model whereby trampling and loss of stabilizing vegetation due to grazing in riparian areas results in higher peak water flows, channel scouring, and erosion and down-cutting, which in turn lowers water tables, ends permanent stream flows, and dries out watersheds (Kovalchik and Elmore 1992, USBLM 1994, Trimble and Mendel 1995, Belsky et al.1999)

Response: BLM reviewed the literature and added statements on the effects of grazing on soil and watershed conditions where the literature was found to be appropriate to this area. Some of the literature referred to activities out of context for this planning area.

Public Concern 6: Noxious and/or Non-Native Plants

Comment 1086 (Center for Biological Diversity et al.): *Livestock grazing in the desert is ecologically damaging, economically unsustainable, and inappropriate. The draft RMP discusses the effects of drought on vegetation production and the impact of non-native species on forage conditions. See draft RMP at 3-71. However, the draft fails to discuss livestock's contribution to noxious weed invasions, as documented below. The draft RMP states several goals for management of the planning region's vegetation resources. We note that the desired future conditions specified for vegetation conflict with the detrimental effects from livestock grazing in each instance. See dRMP page 2-27.*

Livestock promote the spread and colonization of alien plants, which can increase fire frequencies (Billings 1990, Billings 1994, Rosentreter 1994, Belsky and Gelbard 2000). Disturbance is a reliable indicator of alien dominance in vegetation composition, and livestock grazing is a significant disturbance to desert ecosystems (Brooks and Berry 2006). Permitting continued livestock use of allotments within the planning area fails to meet the objective of

"Protect and restore native species in upland and riparian communities through an integrated weed management approach emphasizing prevention, containment, and early detection of invasive weeds," which is identified in the draft RMP as a desired future condition. (page 2-27). This is particularly important because, often, forage estimates for ephemeral authorizations include non-native species, which thereby exacerbates the on-the-ground situation. To use non-native species as forage ensures that disturbance in colonized areas will continue, that seeds will be spread through coats and feces, and that relative productivity estimates will be skewed towards a changed desert. Further, weed invasions are strongly associated with livestock watering sites (Brooks et al 2006), and the RMP and the preferred action should indicate the locations and associated weed invasions of "range improvements" in the Yuma planning district.

Catastrophic wildfires in Arizona and California's desert have been linked to weed invasions, including weeds present in the Yuma planning area. Altered fire regimes and weed invasions have deleterious effects on wildlife habitat, especially for the desert tortoise, which relies on native species as preferential forage. Desert tortoise have a strong preference for native species of annual plants even where non-natives are abundant, and desert tortoise preferentially select ten native plant species even in areas where these species are uncommon or rare (Jennings 1997). Weed composition and the subsequent diminished forage availability is serious threat to the recovery of the species, and also fails to meet the objective, as stated in the draft RMP, of ensuring that, "forage on rangelands continues to support wildlife and grazing in a manner consistent with other resource management objectives or uses." See draft RMP page 2-27. When weeds dominate biomass production in both wet and dry years, it can be assumed that weeds will more successfully colonize new areas over time (Brooks and Berry 2006). The dominance of weeds during even exceptionally dry years indicates that drought disproportionately increases competition between wildlife and livestock for native annuals in these seasons.

Response: Livestock grazing has been demonstrated to be a practical and acceptable alternative to herbicide application for invasive species control and wildfire fuel reduction. However, prior to employing a new grazing treatment on public land, a need for the treatment must be identified through the Standards and Guidelines allotment evaluation process or other planning documents. Then, the proposal must be analyzed under the provisions of NEPA and approved by the authorized officer.

When soil, vegetation, or other resources on the public lands require immediate protection because of drought, fire, flood and insect infestation, Federal grazing regulations permit the authorized officer to close allotments or portions of allotments to grazing or modify authorized grazing use. The use of livestock after a fire is one of many tools available to accomplish vegetative objectives for the area. In order to reduce invasive species from a treated area livestock use may be authorized for a short period of time after a burn to further reduce the amount of these species. The ecological sites found within both the Havasu and Yuma planning areas are dependant on rainfall, and grazing is not authorized in these areas until such time as the grass species have recovered from the burn. The period of rest may take several years in the absence of rainfall. It is impractical to have a set period of time for recovery after a burn. Monitoring of the area would establish the appropriate time for livestock to be reauthorized.

The RMP strives to manage livestock grazing in such a manner that natural processes would function normally and desired plant community objectives are attained. In general, the desired plant communities contain the plant species that are identified by the applicable ecological site guide for the area. Livestock use levels are limited and monitored for compliance so that plant vigor is not altered or reduced. That being said, livestock grazing should have minimal influence on the fire frequency and intensity. Grazing management practices adhere to the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration (USDOI BLM 1997a). Guideline 3-4 of this policy states, "Intensity, season, and frequency of use, and distribution of grazing use should provide for growth and reproduction of those plant species needed to reach desired plant community objectives."

Public Concern 7: Wildlife

Comment 1383 (AGFD): *Page 3-69, Table 3-17, RMP Statement-None: The Department believes that grazing at full preference as shown in this table for several years would result in significant damage to wildlife habitat in this desert environment.*

Response: Grazing use on all allotments is done in accordance with the regulations in 43 CFR 4100 and the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration.

7. Mining and Mineral Exploration

Public Concern 1: Natural Resources

Comment 30: *… concerned with uranium exploration and its effects on the environment.*

Response: Although there is a small area (less than one square mile) within the Muggins Mountain Wilderness with moderate potential for uranium, the entire Wilderness area is withdrawn from mineral entry and therefore mineral exploration would not be allowed. There is a known uranium occurrence approximately 0.5 miles east of the Muggins Mountain Wilderness. Any surface disturbance associated with exploration and/or development of uranium would be managed according to regulations contained in 43 CFR 3715 and 43 CFR 3809. The YFO would continue to ensure that operators comply with these regulations in order to prevent unnecessary or undue degradation of public lands.

Public Concern 2: Special Designations

Subconcern: Areas of Critical Environmental Concern (ACECs)

Comment 1424 (Quechan Tribe): *The Tribe requests BLM to 'withdraw' lands with significant cultural resource sensitivity pursuant to FLPMA, thus precluding possibility of future development on those lands... If BLM designates land as an ACEC, BLM should manage the protected cultural or natural resources for long-term preservation, not for mineral entry or other uses inconsistent with long-term preservation.*

Comment 61: *Withdraw all existing and proposed Areas of Critical Environmental Concern*

(ACECs) and other sensitive areas from mineral entry.

Response: Please refer to Chapter 2, Section 2.18, Table 2-30. BLM-administered lands in the Big Marias ACEC, a portion of the expanded Sears Point ACEC, and portion of Dripping Springs ACEC are proposed to be withdrawn from general land laws including mineral entry under the Proposed Plan. Future withdrawal proposals may be considered to protect resource values within ACECs and SCRMAs. The values for which ACECs are designated are considered the highest and best use for those lands, and protection of those values would take precedence over multiple uses.

Subconcern: Wilderness Areas

Comment 147: *No mining approved. Please protect this area and keep it wilderness.*

Response: Designated Wilderness areas are currently withdrawn from mineral entry, subject to prior existing rights, as required under the Wilderness Act of 1964.

Subconcern: National Recreation Trails

Comment 1140 (Center for Biological Diversity et al.): *The Betty's Kitchen trail should not be extended for an additional five miles, as proposed by BLM in Alternative E, the Preferred Alternative. The DEIS fails to adequately assess the impacts of such an extension. Right now the existing half-mile trail is an interpretive trail. Extending it to the north for five miles would change its nature away from nature and will just encourage access to areas that are better protected now for their natural values. The DEIS does indicate that extension of the trail will adversely impact riparian habitat and wildlife (p. 2-172) and cause soil disturbance (p. 2-179), but doesn't follow through in analyzing these impacts. Expanding the Betty's Kitchen Trail by five miles will result in more destructive fires in the riparian vegetation of the area, more vandalism, and more littering of the area opened by the trail. These impacts are not suitable for a fragile riparian and wetland area.*

Response: The Betty's Kitchen Trail extension has been removed from the Proposed Plan of the PMRP/FEIS. This would preclude additional impacts to soils, riparian habitat, and wildlife from the trail's installation. It would also reduce the risk of human-caused disturbances to the area from improved recreational access, including noise, litter, and wildland fires. Options to provide wildlife-compatible recreation opportunities within the Mittry Lake Wildlife Area would continue to be considered in cooperation with AGFD and Reclamation.

Public Concern 3: Health and Safety

Comment 1052 (Yavapai-Apache Nation): *We have special concerns about any (even small scale) mining involving radioactive ore(s), such as vanadium and/or minerals in that family. We understand the power of the Mining Act of 1875, but we also maintain the dangers and long term consequences of these materials were not suspected let alone understood until a generation after the Law was enacted.*

Response: As stated in Section 2.19.2 - "Regulations contained in 43 CFR 3715 and 43 CFR 3809 provide for the management of surface disturbance associated with mineral exploration and development". YFO would continue to ensure that operators comply with these regulations in order to prevent unnecessary or undue degradation of public lands.

Public Concern 4: Salables (Sand and Gravel, Decorative Rock)

Subconcern: User Conflicts

Comment 1010 (City of Yuma): *The proximity of community pits as specified in Alternatives B and E located within the Gila Mountains is not compatible or aesthetic to the area as an entryway into the community. If this use of community pits is pursued as part of the Draft Resource Management Plan, it is recommended that the location of the Community pits be moved outside the Gila Mountains area.*

Response: The Telegraph Community Pit on the western edge of the Gila Mountains was removed from the Proposed Plan of the PRMP/FEIS. This would prevent impacts to the visual resources of the area from such an action. The BLM is authorized to establish community pits without a land use plan. If it is determined that a community pit in the Gila Mountains is necessary to meet public demand in the future, the BLM would work closely with the City of Yuma to select an area that does not affect the scenic attributes at the entrance to the community.

8. Cultural Resources Management

Public Concern 1: Adequacy of Analysis

Comment 1048 (Yavapai-Apache Nation): *The Nation would like to see special consideration given to rock art sites in your jurisdiction, when they are threatened or in danger of being negatively impacted by development.*

Response: Under the Proposed Plan, many of the rock art sites in the planning area are within proposed ACECs and SCRMAs, which provide them additional protection from development. In addition, the BLM YFO complies with the NHPA and other applicable cultural resource laws and regulations for any proposed developments. When resources of significance to the Yavapai-Apache Nation, such as rock art sites, could potentially be impacted by a proposed undertaking, YFO would request the tribe's input during the NHPA Section 106 process.

Comment 1413 (Quechan Tribe): *As BLM acknowledges, since only 16% of the planning area has ever been surveyed for cultural resources, there could be tens of thousands of prehistoric and historic sites that remain undiscovered on the lands. DRMP, p. 3-58. Due to this likely possibility, BLM must adopt a management plan that is more protective of cultural resources than the current preferred alternative, and also must ensure that no site-specific actions are authorized until affected lands have been properly surveyed for the presence of cultural resources.*

Response: The Proposed Plan includes several land use allocations intended to protect known natural and cultural resources throughout the planning area, including SCRMAs, ACECs, and

VRM classifications. BLM will continue to comply with the NHPA and its implementing regulations for all proposed undertakings. YFO will also continue to follow the guidelines as outlined in 36 CFR 800.4 for determining the level of effort necessary for the identification of cultural properties within an Area of Potential Effects for each undertaking that involves BLM-administered lands.

Public Concern 2: Domestic Livestock Management

Comment 34*: The number of cattle on the land is an impact to cultural resources. Cattle rub rock art and trample archaeological features and artifacts.*

Response: The effects of livestock grazing on cultural resources are considered when grazing permits are authorized according to Arizona Guidelines for Grazing Administration, Guideline for Standard 3, 3-7 "Management practices to achieve desired plant communities will consider protection and conservation of known cultural resources, including historical sites, and prehistoric sites and plants of significance to Native American peoples."

Public Concern 3: Special Cultural Resource Areas (SCRMAs)

Comment 1414 (Quechan Tribe): *The DRMP divides the SCRMA sites into categories based on the proposed future use for such lands. A total of 19,200 acres of SCRMA lands are reserved for 'scientific use'. DRMP pp. 2-111/2-115. Cultural properties on the 'scientific use' lands are 'protected until land use conditions or research in the public interest makes it necessary or advisable to subject them to scientific study.' DRMP p. 2-111. Thus, these resources are not protected for traditional uses, or designated for long-term preservation, but are reserved solely for future scientific study. The Tribe does not consider this to be adequate protection. The 'scientific use' category raises other questions unanswered by the DRMP. For example, what kind of studies will be permitted? Who will be allowed to do the studies? Will the Tribe and other affected Indian tribes have a say in which 'selected sites' are permitted for scientific and historic studies? What constitutes a 'qualified' researcher? Finally, what are examples of situations in which scientific studies of cultural resources are necessary for the public interest? The current DRMP is far too vague regarding how the SCRMA 'scientific use' lands will be managed and protected.*

The remaining 9,300 acres of SCRMA lands are designated as 'conservation for future use.'This designation also provides only limited and interim protection. Page 2-113 of the DRMP states that 'cultural properties in the [conservation for future use] category would be managed to maintain their present conditions or setting until conditions are met in the future that would make them available for other uses.' In other words, designation as a SCRMA does not prevent BLM from authorizing land use actions that could adversely impact cultural resources. This is not acceptable. Lands designated for special cultural resource protection must be given permanent protection and not simply reserved for future disposition by BLM.

Although BLM has authority to designate SCRMA lands as 'traditional use' lands that would be 'managed for long-term preservation to accommodate the needs of Indian tribes and other groups, for which these places are important,' it has not done so. DRMP, at pp. 2-112/2-115. In

fact, BLM's plan does not designate any of the SCRMA lands for traditional use or long-term preservation of cultural resources.

The Tribe requests BLM to revise its preferred DRMP alternative to increase the total acreage designated as SCRMA lands, and to designate a significant portion of the SCRMA lands for traditional use and long-term preservation. Specifically, the Tribe requests that the Walter's Camp lands be managed for traditional use and long-term preservation. The Walter's Camp lands are of unique significance to the Tribe and are subject to significant development pressures. BLM should consult with the Tribe to determine what other SCRMA lands are most appropriate for the traditional use designation.

Response: Definitions for the five cultural resource use categories were incorporated from BLM Manual 8100 series. This manual contains additional information on each use category, and the YFO is unable to modify or change these use category definitions. However, the use category system is meant to be fluid, so that management of a cultural site or SCRMA can change as needed. To manage cultural resources for their appropriate uses, BLM may allocate a cultural resource to one or more use categories, and category allocations are reevaluated and revised, as appropriate, when circumstances change or new data becomes available. While the primary focus of a SCRMA is for a particular use, individual sites within the SCRMA may be managed for any of the six use categories, as appropriate.

As stated in 2.15.3 C, "Cultural sites and SCRMAs managed for traditional use are limited to those identified by Native American tribes…as important for maintaining their cultural identity, heritage, or well-being." If in the future new information is received from a Native American tribe that makes a cultural site or SCRMA appropriate for traditional use, then the use categories for that cultural site or SCRMA would be revised to reflect that traditional importance. Based on the information shared by the Quechan Tribe in their comment letter, the RMP has been revised to show that the Walters Camp SCRMA is appropriate for allocation to traditional use and conservation for future use.

Regardless of the cultural resource use categories allocated to a particular cultural resource site, impacts to that site from implementation-level actions would be evaluated and mitigated pursuant to NHPA, NEPA, and other applicable cultural resource laws and regulations.

Public Concern 4: Native American

Comment 768 (BIA): *Indian Trust Assets should be analyzed in the Final EIS.*

Response: Indian Trust assets are lands, natural resources, money, or other tangible assets held by the Federal government in trust or restricted against alienation for Native American tribes and individual Indians. There are no Indian Trust assets on BLM-administered lands in the YFO, and the BLM has determined that the actions described in this PRMP/FIES would not affect Indian Trust assets.

9. Wild Horse and Burro

Public Concern 1: Clarity of Information

Comment 533: *"Nuisance" animals? Because they cross a road that came between them and their natural instinct to roam? (Sections 4.5.2)*

Response: The term "nuisance animal" is commonly used by the BLM to refer to wild horses or burros that have strayed from BLM-administered HMAs and traveled onto private lands. The guidance for handling stray animals can be found in 43 CFR 4720.2-1.

Public Concern 2: Agency Funding and Expenses

Comment 549: *As a citizen and horse lover, I am very concerned that our national wild life is so often on the line for their lives and continuance because of crappy, careless, or downright cruelly uncaring management plans. If this is due to budget constraints, then maybe the B.L.M. should complain to the US government that it can spend millions of dollars a day to destroy lives and property in Iraq—surely we can find some money and brain power to preserve one of our wonderful national treasures!*

Response: This RMP has been developed in full accordance with FLPMA and the Wild Free-Roaming Horse and Burro Act of 1971, as amended.

Public Concern 3: Herd Management

Comment 1363 (AGFD): *2-76, 2.10 Management Common to All Alternatives, RMP Statement-None: The Department recommends adding a bullet that states: Burros outside of an HMA but within an HA and burros outside of an HA will be gathered and removed.*

Response: The procedure to remove horses or burros outside an HMA but within an HA is found in Table 2-10 in Section 2.10. Wild horses or burros outside of an HMA but within or outside an HA will be gathered in accordance with policy and regulations at 43 CFR 4720.2-1.

Comment 809: *Please do not accept policy decisions that plan to zero out specific wild horse and burro populations in your state.*

Response: There are no proposals within the PRMP/FEIS that would "zero out" any populations of horses and/or burros within the planning area.

Comment 1030: *For a complete overview of the situation, please review Wild Burros of the West-A Critical Analysis of the Current Status of Wild Burros on Public Lands –2006 attached to the back of this document. It is imperative that specific plans be outlined within the Resource Management Plan (RMP) that gives special consideration and attention to wild burros impending demise if BLM fails to properly coordinate resources for their continued preservation and survival.*

While there are a number of proposals outlined within the RMP regarding wild horses and burros within the planning areas, researching these proposals has shown that they are unacceptable for a variety number of reasons. The first of which is the actual lack of planning and management strategies provided within all of the proposals that fail to secure the preservation, protection and continued sustainability of the herds within the RMP's framework.

Response: Section 3.5.1 references the Cibola-Trigo HMA Plan completed in 1980, which outlines specific management strategies for the HMA. Section 2.10 Wild Horse and Burro Management lists management actions from the 1980 plan that would continue to be used to manage the Cibola-Trigo HMA. While land uses may have changed, the existing forage continues to support the AML_2 established in the HMA plan. The PRMP/FEIS carries forward the allocation of HMA and AML_2 and is in accordance with 43 CFR 4700.

Comment 559: *No acreage should be eliminated from the current Herd Areas or Herd Management Areas. No water sources used by wild horses and burros should be transferred, sold, or eliminated. No reductions in Appropriate Management Levels (i.e., no population reductions). No wild horse/burro range should be transferred to agencies that refuse to protect wild horses and burros (such as the National Park Service, who does not "manage" them and considers shooting them as a humane population control method). Clear and detailed preservation plans must be provided for wild horses and burros, including proper forage allocations for current populations.*

Comment 715: *Please scrap this plan and compose another that will uphold and defend the rights of the wild equids. This plan should emphasize in-field strategies for attaining viable and stable populations through use, whenever possible, of natural barriers and by allowing the wild equids to fill their ecological niche space, forming a mosaic of individual band home ranges that will automatically tend to limit their populations through the activation of density dependent responses...Your plan must provide adequate resource allocation including all the elements for a viable habitat: forage, water, shelter, migration provision, appropriate mineral sources, etc., and should increase the allowable Appropriate Management Levels within their historic, legal herd areas so as to assure their long-term viability and continued enjoyment and observation by the substantial number of human supporters and appreciators.*

Comment 1040 (YVRGC): *We agree with the Preferred Alternative that Wild Horses and Burros should be managed with respect to the proposed reduction of acreage and numbers. The YVRGC also respectfully submits that additional resources should be employed to ensure that Wild Horse and Burro numbers should never exceed the numbers identified within this Plan.*

Response: Within the HMA, there are four separate areas. The portion of the current HMA north of I-10 proposed for elimination has had no burro or horse use documented or observed since 1989, further, a vast majority of the public lands in this portion of the HMA were transferred to the Colorado River Indian Tribes in August, 2005, through the Colorado River Indian Reservation Boundary Correction Act. Small tracts of public lands in the Gila and Mohawk Mountains are not currently used by burros or horses. The only time burro use was identified was in 1973. These areas are not connected to the main portion of the HMA, but are contiguous to the BMGR. Preliminary planning documents in the early 1980s stated that burros were on the BMGR and that their use potentially moved up these two ranges. The area proposed

for elimination within the main body of the HMA east of US 95 is primarily U.S. Army withdrawn lands on YPG. This portion of YPG has been used for much of its history as a live fire and high explosive impact zone. This activity presents an unacceptable danger to wild horses and burros and all attempts to mange these animals in such an environment.

The proposed plan in no way anticipates nor encourages restrictions to use of historical water sources or the transfer of public lands under the jurisdiction of the BLM to private or other governmental agency. The AML_2 would be subject to change only after an evaluation and analysis of monitoring data indicates a change is needed, whether upwards or downward. Changes to AML_2 would be an implementation-level action and would be accomplished with full public participation in accordance with NEPA and other environmental laws.

Comment 1198 (Arizona Desert Bighorn Sheep Society): *We enthusiastically support the compression of any wild burro herd management areas and support the removal of burros west of Highway 95. We would additionally suggest the population of wild burros throughout the planning area should be reduced. There presently exists within the established herd management areas far more burros than what is appropriate and allowed. Continued efforts to reduce the population of the ever-growing herds and minimize the associate[d] damage to wildlife habitat would be very appreciated.*

Comment 917: *The "wild" horse advocacy groups are insisting that in this particular case, we the taxpayers should make an exception to biology and create -- and indefinitely fund...an artificial world full of windblown manes and happy hoof beats ...As a taxpayer, I certainly expect much better from trained biologists, especially those whose responsibility is management of these horses. No matter how urgently this issue is politicized, in the end it is biology that decides.*

Response: Wild burros are managed to preserve the natural resources and prevent damage in accordance with the Wild Free-Roaming Horse and Burro Act of 1971, as amended. AML_2s are established to ensure that use levels will not result in resource damage. The current population of wild burros and horses is at or near the AML_2 for the Cibola-Trigo HMA.

Comment 1026: *Provide specific data on rangeland forage capacity within the planning areas, breakdowns of available forage types (20% grasses, 30% forbs, 40% shrubs, etc.). List all significant rangeland users such as mule deer, pronghorn antelope, elk, bighorn sheep, cattle, sheep, and wild horses and burros. Provide projected management plans and goals for each species, projected habitat requirements, expected rangeland allocations, and population targets. Illustrate in a comprehensive table that clearly delineates numbers, allocations, and projected use levels.*

Response: The AML_2 for wild horses and burros in the Cibola-Trigo HMA is set based on the Herd Management Area Plan of 1980 and monitoring has determined that appropriate levels have been maintained (referenced in Section 3.5). Cibola-Trigo HMA monitoring data from 1999 to 2004 are available for public review.

Comment 1056 (Animal Welfare Institute): *The Cibolo-Trigo Herd Area/Herd Management Area (HA/HMA) is home to one of only two wild horse herds in the entire state of Arizona and one of the few remaining wild burro herds in the state. Although the DRMP/EIS states that the*

existing HMA shares identical boundaries with the original HA (a total of 264,900 acres) (p.2-76), the BLM's own HA/HMA statistics indicate otherwise. The original Cibolo-Trigo HA encompassed 281,388 BLM acres and 746,513 other acres for a total of 1,027,901 acres. The HMA now encompasses 279,595 BLM acres and 639,343 other acres for a total of 918,938 acres – a loss of 108,963 acres from the acreage originally designated, but 654,038 acres more than indicated in the DRMP/EIS in Table 2-9 on p. 2-76. (See the chart on BLM's National Wild Horse and Burro Program website: http://www.wildhorseandburro.blm.gov/statistics/2006/Arizona.pdf) The DRMP/EIS must account for the discrepancy in these numbers and explain the complex jurisdictional issues involved in the management of this HMA. It is vital for the public to understand land jurisdictional issues, if present, in order to assess the adequacy and appropriateness of the alternatives analyzed in the DRMP/EIS.

The same statistical chart also indicates that during the last decade, wild horses and burros have lost 333,955 acres (253,570 BLM acres; 80,385 other acres) in the state of Arizona alone, a fact not disclosed in the DRMP/EIS, but one that could have far-reaching implications for the management of wild horses and burros within the region. This loss, coupled with the nearly 20 million acres of lost habitat across the West since enactment of the 1971 Wild Free-Roaming Horses and Burros Act (WFHBA) is startling. Yet, four of the five alternatives in the DRMP/EIS – all, but the "no action" alternative, propose reducing acreage in the Cibolo-Trigo HMA by 30%. To make matters worse, all alternatives propose the same Appropriate Management Levels (AMLs) for wild horses (150) and burros (165) that were established in the Cibolo-Trigo HMA plan in 1980 – 27 years ago!

At a minimum, the DRMP/EIS should have analyzed alternatives that would have included an increase in the wild horse and burro AMLs, the relocation of wild horses and burros into other areas from which they have been totally removed or reduced in the past, the development of new agreements with other federal, state, local and/or tribal agencies and/or other parties to allow for greater accommodation of wild horse and burro habitat needs, and an expansion of the HMA to include acreage designated in the original HA. In addition, to offset the significant loss of wild horse and burro habitat in the last several years, the DRMP/EIS should have analyzed the feasibility of land acquisition through purchase, donation, exchange and/or eminent domain to provide more habitat for wild horses and burros, especially given these animals are two of the few species that are afforded special federal protection. To underscore the importance of such an analysis, in its assessment of Desired Future Conditions (DFC) for land acquisition, the DRMP/EIS states that lands to be acquired must maintain or enhance public uses and values, provide for a manageable land ownership pattern and/or include significant natural or cultural resource values (p. 2-138) – all criteria applicable to ensure the protection and responsible management of wild horses and burros, animals historically and currently the victims of reckless management decisions.

To make matters worse, based upon the BLM's map at the following link, it appears that the acreage within the Cibolo-Trigo HMA is not contiguous. (see: http://www.wildhorseandburro.blm.gov/statistics/hmas/AZ1_ha_ hma.pdf This fact is not discussed in the DRMP/EIS. In fact, the DRMP/EIS offers no detailed discussion of the numbers of distinct populations or bands within the HMA, the degree to which there is genetic exchange among distinct populations in the HMA, their locations at various times of the year, their dietary

preferences and use, their migratory patterns, any and all overlap with other wild ungulates and wildlife species (such as the Sonoran desert tortoise) and/or livestock, and a comparison of forage allocation between wild horses and burros and other wildlife species and/or livestock. Despite the BLM's past acknowledgment of the potential problems associated with low populations and the ever-increasing scientific knowledge about equine genetics, the DRMP/EIS proposes AMLs that are perilously low. The DRMP/EIS fails to discuss what constitutes equine genetic viability or to examine other health concerns for wild horses and burros. What are the potential impacts of disease outbreaks on herds managed at marginal levels? What are the habitat needs of wild horses and burros? What constitutes healthy age and sex ratios in a herd? How do the social structures of wild horses and burros differ from one another? AWI believes that, given past management actions, the small number of animals in the HMA and the dearth of monitoring data for this HMA, it is incumbent upon the BLM to exercise precaution in its management approaches rather than to adopt a reactive management strategy that may wind up being too little too late. To this end, the BLM should seek to preserve the genetic variation within this herd by developing alternative management directions that specifically address these concerns. For example, there is no discussion about if and where fencing occurs in the HMA. Even if populations are adequate to sustain genetic viability, fences can prevent genetic exchange and free-roaming movement patterns. While the BLM often proposes the periodic introduction of breeding animals into herds as a means of addressing the problems associated with inbreeding (reduced reproductive success, reduced foal survival, reduced adult fitness and physical deformities), the DRMP/EIS does not address this issue whatsoever.

Response: The discrepancies in acreage are due to the use of more accurate GIS calculations. The boundary of the HA in the DRMP/DEIS is the same boundary as shown on historical use areas from surveys completed in 1973. YFO will submit a correction to the National Database.

The PRMP/FEIS addresses only actions and impacts to wild horses and burros within the Cibola-Trigo HMA. The populations of wild horses and burros would remain at the AML_2 levels established in the 1980 Cibola-Trigo HMA Plan, and therefore the Proposed Plan would not contribute to a State- or nation-wide decrease in wild horse and burro populations. Monitoring data collected from 1999 through 2004 was evaluated to analyze the AML_2 for the HMA; the current AML_2 continues to be appropriate.

Within the scope of the PRMP/FEIS, there are no areas where wild horses or burros within the YFO have been totally removed. The BLM is restricted in the management of wild horses and burros by PL 92-195 to public lands upon which they were present in 1971. Within the existing boundaries of the HMA, there are few instances where land could be acquired.

The HA delineation is based upon information from various sources and inventories conducted in 1973 to determine where wild horses and burros were present in 1971. Maps from 1979 formed the basis for this information to delineate the HA. There are three portions that were in fact separated from the main body of the HA, generally by large segments of private land. YFO, in accordance with current BLM policy, collects genetic data during removal operations to ensure that genetic viability is maintained.

Comment 1060 (Animal Welfare Institute): *The DRMP/EIS also does not adequately describe current conditions of the range and/or riparian areas to indicate whether the conditions are poor, fair or good, whether trends indicate improvement or not and precisely which factors are contributing to these conditions and trends. Surely, the BLM has collected vegetation production, abundance, and composition data since it produced the last RMP for this area. This information, which is crucial in determining the appropriate AML for horses and burros, AUMs for cattle, and for ensuring there is sufficient food for wildlife, was required to be disclosed in the DRMP/EIS. This information is needed both to facilitate a reanalysis of the previously set AMLs and AUMs but also to ensure that the public has access to such information to consider when evaluating the sufficiency of the BLM's analysis The analysis must also disclose and evaluate appropriate monitoring techniques to determine range conditions and utilization patterns to support its preferred alternative. The DRMP/EIS must provide such information for the public to assess whether or not the alternatives, including the preferred alternative, are defensible. Moreover, the DRMP/EIS must analyze the appropriate allocation of range resources between wild horses and burros and other range users, in the context of the statutory mandate to engage in only "minimum feasible level" of management activities for wild horses and burros and the impact of those allocations on establishing AMLs and other management decisions.*

The DRMP/EIS also states that in all alternatives the YFO would mitigate loss of access to water along the Colorado River due to changing land use by either providing fenced access routes or developing new water sources. Again a flood of questions emerge. How will land use changes specifically affect wild horses and burros? Where would the animals lose access? Where would access routes be constructed? And where and what type and how many water resources would be developed? How will such developments affect natural migratory patterns and herd dynamics?

BLM Manual 1622.4 specifically deals with resource constraints needed for wild horse and burro management by requiring a listing by HMA of constraints that will be required on other resource uses, both consumptive and nonconsumptive, to allow for herd management at the appropriate intensity. If anything, the BLM has turned this guidance on its head by routinely sacrificing the interests of wild horses and burros for nearly every other use (particularly recreational sport hunting, livestock grazing and other commercial industries) even when it jeopardizes the welfare of wild horses and burros. While AWI is not necessarily advocating the installation of additional water developments, especially in order to artificially inflate the numbers of certain "game" species or to accommodate livestock, such proposals reveal the preferential treatment given to certain species, noting that wild horses and burros may benefit serendipitously. Further, AWI is seriously concerned about the potential and real negative impacts on "nongame" species and the integrity of the ecosystem from the installation of so-called range "improvements." The DRMP/EIS does not sufficiently analyze such impacts.

The DRMP/EIS proposes that all portions of the HMA east of US 95 would revert to HA status and all wild horses and burros would be removed due to safety concerns. What safety concerns? Vehicular collisions? How many collisions with wild horses and burros have occurred in the past? How many with other wildlife species? What was their severity? What alternatives to removal are available? For example, what about the construction of passages under highways, vegetation modification, speed limit reduction and enforcement and/or the installation of the

Strieter Lite system, which is eligible for 80% federal funding under the Hazard Elimination Program of the Federal Highway Administration (see: http://strieter-lite.com/index.php), to name a few. The newly enacted TEA-21 (Transportation Equity Act for the 21st Century) provides matching funding for projects to reduce vehicle-caused wildlife mortality.

The DRMP/EIS states that when the BLM deems the wild horse and burro population has exceeded capacity needed to maintain the vegetative community, excess wild horses and burros will be removed and offered to the public through the Wild Horse and Burro Adoption Program (p. 2-75). However, the DRMP/EIS fails to disclose that there are currently more animals in long-term holding facilities than are in the wild today. An amendment to the 1971 WFHBA now requires that animals older than 10 years of age and who have not been adopted after three attempts be sold without limitation – opening the doors to commercial exploitation, including the possibility that the animals will eventually wind up in the hands of killer buyers who will sell them to slaughter for human consumption overseas. The DRMP/EIS does not discuss the numbers of animals currently in holding, the potential disposition of these animals nor the program's costs.

According to the DRMP/EIS, there are four HAs and seven HMAs managed by the YFO. These HA/HMAs contain 210 wild horses and 2,500 wild burros (p. 2-74). However, according to the BLM's HA/HMA statistics for FY 2006, in the entire state of Arizona, the AML for wild horses is 210 and for wild burros, 1360, with populations of 230 and 1542 respectively. Another huge discrepancy in numbers. The DRMP/EIS leaves the public with the erroneous impression that the wild burro population is almost twice as large as is the case. Furthermore, AWI is at a loss why only management of the Cibolo-Trigo HMA is analyzed in the DRMP/EIS. (p. 2-74) The DRMP/EIS offers no explanation why management review of these other HA/HMAs is not provided in the current DRMP/EIS, nor is there any discussion of how these herds are currently managed and what cumulative impacts such management may have on the overall health, genetic viability and sustainability of wild horses and burros in the YFO specifically and in region generally.

Nearly half of the remaining wild burros in the West reside in Arizona. Shockingly, their numbers have been dramatically reduced due to an abdication of the BLM's responsibility to protect these animals. Management decisions have methodically reduced acreage available to the animals, and typically the population targets for the herds residing therein. In fact, wild horses and burros have lost nearly 20 million acres of habitat throughout the West due to piecemeal land use planning processes since the enactment of the 1971 WFHBA. Not once has the BLM considered the cumulative impacts of such losses. This DRMP/EIS is no exception despite the fact that the YFO manages more wild burros than any other single BLM field office.

Response: YFO follows BLM Technical Reference 4400-7, Rangeland Monitoring, Analysis, Interpretation, and Evaluation, in the determination of desired grazing levels within any particular allotment or HMA. Range condition information is not necessary for determining AML_2 or grazing capacities in the Sonoran Desert. Monitoring data relating to climate, actual use, and utilization have been collected since 1999 within the Cibola-Trigo HMA to ensure that existing populations of wildlife and wild horses and burros are within acceptable levels. Data collected have thus far supported the existing AML_2s within the Cibola-Trigo HMA. Livestock

grazing occurs on approximately 30,000 acres within the HMA, and because there is limited habitat overlap, there have been no conflicts between wild horses and burros and livestock. Management continues to be in accordance with FLPMA and the Wild Free-Roaming Horse and Burro Act, as amended. NWRs do not fall under the Wild Free-Roaming Horse and Burro Act of 1971 (PL 92-195). Should either of the NWRs on the Colorado River determine that any burro use on the NWR is contrary to their management goals and objectives, BLM would need to negotiate access points with them, or develop alternative water sources outside of the Refuge. At this time, this action is not necessary.

Within the Cibola-Trigo HMA, much of the area is within lands withdrawn by the U.S. Army, through a Cooperative Management Agreement. Most constraints are related to BLM management activities. Within the HMA, there are few artificial water developments used by wild horses and burros.

The discussion in Section 4.5.1 of the PRMP/FEIS was revised regarding accidents involving vehicles and horses and burros. There have been many accidents along U.S. 95 since 1979 involving wild horses and burros. One resulted in the death of the occupants of the vehicle. However, these incidents have been dramatically reduced over the last six years. The larger health and safety concern is for the wild horses and burros and personnel on the YPG Kofa Firing Range. This is the portion of the HMA east of U.S. 95. This is a live fire and high explosive impact area on YPG. The potential of unexploded ordnance is high and endangers not only the animals, but personnel attempting management. We have also revised Section 2.10 to clarify that there are four HAs and seven HMAs in the State of Arizona, instead of in the YFO planning area.

National program guidance determines the numbers of animals currently in holding, the potential disposition of these animals, and the program's costs. The PRMP/FEIS addresses actions and impacts to wild horses and burros within the Cibola-Trigo HMA, because this is the only HMA in the planning area. The populations of wild horses and burros would remain at the AML_2 levels established in the 1980 Cibola-Trigo HMA Plan, and therefore the Proposed Plan would not contribute to a State- or nation-wide decrease in wild horse and burro populations.

Comment 1059 (Animal Welfare Institute): *BLM repeatedly ignores its regulatory mandate that wild horses and burros shall be considered comparably with other resource values in the formulation of land use plans. CFR 4700.06 (b). (Emphases added) Judging from most BLM land use plans, including the current DRMP/EIS, wild horses and burros are an afterthought in the process. Once the desired forage allocation for other species is calculated, wild horses and burros are left with the crumbs. The fact that the DRMP/EIS doesn't even consider an increase in wild horse and burro AMLs in the Cibolo-Trigo HMA tends to confirm the inherent bias against these animals. Is there a balance of forage allocation between wildlife, livestock and wild horses and burros in the YFO? How many Animal Unit Months (AUMs) have been allocated for wild horses and burros in the planning area? for wildlife? for livestock? Conveniently, the BLM routinely omits this information and has never compiled a comparison chart of forage allocation for public dissemination. Perhaps this is due to the fact that forage allocation has historically and continues to be heavily skewed to favor "game" species and private livestock, at the expense of the public's wild horses and burros.*

The BLM would have the public believe that ongoing monitoring indicates no need to adjust the AMLs in Cibolo-Trigo HMA, yet the DRMP/EIS provides no relevant information to substantiate this position. At a minimum, a description of the monitoring methodology along with a detailed summary of results should have been provided in the DRMP/EIS for public review. If, for example, the monitoring fails to distinguish forage consumption patterns between different species of animals -- specifically between wild horses and burros, other wildlife species and livestock -- by analyzing their numbers and distribution at various times of the year, the concept of managing for a "thriving natural ecological balance" becomes meaningless. In other words, the public needs to know which animals are grazing where and when in order to be able to determine whether or not the wild horse and burro AMLs are justifiable and when and why they should be modified.

Response: All actions within the PRMP/FEIS were developed in accordance with 43 CFR 4700.0-6(b). Neither the Wild Free-Roaming Horse and Burro Act of 1971 nor the regulations require that an alternative increasing AML_2 be part of our analysis, particularly when current monitoring data continue to support the existing AML_2. The Cibola-Trigo HMA Plan established the AML_2 based on available forage for wild horses and burros and other native wildlife. Subsequent forage utilization data and herd census data collected by YFO between 2000 and 2006 is available upon request.

Comment 1058 (Animal Welfare Institute): *Countless other issues that warrant discussion are conspicuously absent from the DRMP/EIS. For example, the DRMP/EIS states that wild horses and burros would be managed in areas adjacent to the National Wildlife Refuges (NWRs) on the Colorado River in accordance with "mutual agreements" established for resource protection to meet the National Refuge management objectives. (p. 2-76). This disclosure in the DRMP/EIS raises more questions than it answers. For example, which areas adjacent to NWRs are being used by wild horses and burros? How many acres do these areas encompass? What are the contents of the agreements? Are the National Refuge management objectives aligned with the federal protections provided to wild horses and burros on BLM lands? What was the level of public involvement in arriving at "mutual agreements?" How old are the agreements and have conditions changed? What are the "agreed upon" use levels? Have other forage species been identified? Can either agency (the BLM or the U.S. Fish and Wildlife Service) nullify the agreements? What would this mean for the management and welfare of wild horses and burros? And most importantly, what are the grounds for the agreements in the first place? According to the DRMP/EIS, the NWRs are not included within the boundaries of the Cibolo-Trigo HMA. (p.2-76) All unanswered questions need to be addressed if the BLM expects the public to offer substantive comments.*

The DRMP/EIS further states that in January 1996, the BLM and Imperial NWR initiated a joint planning process for the Imperial and Trigo Mountains Wildernesses. Apparently, the presence of wild burros in the area was controversial, and a "Burro Subgroup" was formed to develop monitoring protocols and other management activities. Based upon the very brief description of the process, it appears that the BLM, NWR, Arizona Game and Fish Department (AGFD) and the U.S. Army Yuma Proving Ground (YPG) were involved. It is unclear whether or not any members of the general public and/or interest groups participated, but the recorded bias against wild burros and horses by the aforementioned agencies appears to have infected the BLM's

judgment and jargon. Wild horses and burros are not "nuisance" animals as characterized in the DRMP/EIS (p. 4-40); they are federally protected animals who, as eloquently described in the preamble of the 1971 WFHBA, "contribute to the diversity of life forms within the Nation and enrich the lives of the American people … And are to be considered where presently found, as an integral part of the natural system of public lands." The DRMP/EIS further indicates that the Imperial/Trigo Plan has not been completed, but several "agreements and commitments" have been made that have guided wild burro management on the Cibolo-Trigo HMA since 1999 (p. 3-46) AWI reminds the BLM that this joint planning process began 11 years ago and the management "agreements and commitments" are 8 years old. The agency is obliged to revisit these agreements and commitments or the agency must explain and provide supporting documentation why these decisions should no be revisited with full public involvement in the current development of a new RMP – i.e., the plan that will guide future management direction for all resources in the planning area.

A perfect example of the need to revisit "the agreements and commitments" deals with the reliability of the censusing technique (Simultaneous Double Count) developed in 1999 by the YFO and AGFD and the aforementioned monitoring protocol developed in collaboration with the BLM, NWR, AGFD and YPG. The problems associated with current censusing methods are acknowledged by the BLM, and for this reason, the agency has teamed up with the U.S. Geological Survey (USGS) to research more reliable counting methodologies. (See the following link: http://www.fort.usgs.gov/WildHorsePopulations/default.asp.) Relying on the existing census methodology has resulted in an estimate that the wild burro recruitment rate is approximately 16% annually, (p. 3-47) but again the validity of such an inference is highly suspect. Is the estimate accurate? If so, is this the typical growth rate? What is the average growth rate? What are the factors contributing to foal mortality? Do removals trigger reproduction? How do environmental factors affect reproductive potential? How have they affected reproductive potential in the Cibolo-Trigo HMA? The DRMP/EIS must evaluate the reliability of the censusing technique currently in use and evaluate alternative methodologies and combinations thereof.

Research is also being conducted by the USGS Biological Research Discipline (BRD) in conjunction with the BLM and the U.S. Department of Agriculture Animal and Plant Health Inspection Service (USDA/APHIS) on PZP fertility control, as an alternative or complement to removals and as a means to preserve genetic variability – another item that warranted analysis in the DRMP/EIS, but was omitted.

Response: The Wild Free-Roaming Horse and Burro Act of 1971 specifies the definition of public lands as "any lands administered by the Secretary of the Interior through the Bureau of Land Management…" and NWR lands are not within this definition. Without these agreements, AML_2 would not be feasible.

The Simultaneous Double Count (SDC) is a technique widely used to census wildlife. It is used by the AGFD to census desert bighorn sheep. In 1999, Arizona BLM and AGFD formed a committee to look at census techniques for wild burros. Dr. Francis Singer was included in the initial meetings of the committee. The USGS study has basically accepted SDC as appropriate for burro counts, while they continue to study wild horse counts. The recruitment rate was determined through the evaluation of age data from animals removed, not census data.

Fertility control has not been advanced as an option for population control for wild burros by BLM. Due to low recruitment rates in the horse population, fertility control is also not an option for the wild horses in the Cibola-Trigo HMA.

Public Concern 4: Federal Laws

Comment 569: *The sole and exclusive authority for where wild horses are to be managed is stated in the wild horse law. It says that the BLM must manage and protect wild-horses and burros where they existed in 1971, at the time the law passed. The only land-use decision authorized by the wild horse law is whether to designate an area where wild-horses and burros are known to have existed in 1971 as exclusive habitat for the animals, or as multiple-use land. Lands designated as multiple-use are to be managed "principally but not exclusively" for wild horses and burros. This does not mean that you take the horses off of the land and put thousands of sheep in their place!*

Comment 719: *Public Law 92-195 should protect and provide for both [wild burros] and the wild horses where they were found at the passage of this act in 1971.*

Response: The Wild Free-Roaming Horse and Burro Act of 1971, as amended, allows that the Secretary of the Interior "may designate and maintain specific ranges on public lands as sanctuaries for their protection and preservation, where the Secretary after consultation with the wildlife agency of the state wherein any such range is proposed." Otherwise, they are to be managed "in a manner that is designed to achieve and maintain a thriving natural ecological balance." (Section 3.(a) of PL 92-195). The PRMP/FEIS is in accordance with the Wild Free-Roaming Horse and Burro Act, as amended. Sheep grazing does not occur and is not authorized within the planning area, and there is a minimal amount of livestock use within the HMA. The Proposed Plan would continue managing for the existing AML_2 and would not reduce the number of wild horses and burros in the planning area.

Comment 805: *Under the Wild Horse and Burros Protection Act of the 1970's the Congress passed unanimously, these species have been designated American Heritage Species. As such they are entitled to certain rights and under the protection of that legislation. So, if government agencies and their employees proceed to ignore this legislation, they are ultimately putting themselves in the unavoidable path of potential litigation and consequences. If district managers such as yourself disagree with further up hierarchical decisions made concerning the demise and degradation of these species, there must be protocols within the chain of command to voice disagreement.*

Response: The alternatives within the PRMP/FEIS are in accordance with the Wild Free-Roaming Horse and Burro Act of 1971, as amended, as well as the regulations at 43 CFR 4700.

Comment 525 (American Trailhorse Assocation): *The preservation of the wild herds horses and burros should be guaranteed in writing in perpetuity -- thus eliminating any back room dealings for the weak-willed humans on whom they must depend for help. An oversight group -- not made up of government people to check up on these points 3 times a year to make sure no one forgets what they are suppose to do.*

Response: The Wild Free-Roaming Horse and Burro Act of 1971, PL 92-195, as amended provides protection of wild horses and burros, and the development of an Advisory Board. The PRMP/FEIS proposes nothing contrary to the mandates or constraints in the Act.

Public Concern 5: Water Resources

Comment 721 (Cocopah Indian Tribe): *...during the hot summers when water tables recede, the horses and burros can detect water far off through their keen olfaction...when necessary, they are able to dig down to adequate underground sources, or to similarly enlarge tiny seeps so they can survive through critical dry periods of the year. This greatly benefits many other species of animals whose individual members would otherwise be unable to access water and would perish.*

Response: Within the Cibola-Trigo HMA, wild horses and burros during the summer are primarily found adjacent to the Colorado River where they water nightly.

Comment 1027: *No denial of access to all natural water sources currently utilized by wild horses and burros within the herd area boundaries, including the Colorado River. Proposals should include water requirements of wild horses and burros and allocations that provide for use at the currently established AML's. Include planning that would insure water availability for below average rainfall and/or drought conditions.*

Development of new water sources in addition to current sources with site-specific proposals, projected types and numbers of water developments, supply capabilities, maintenance requirements and potential dangers or adverse impacts of those proposals.

No fencing or restricted access to water sources that inhibits their free-roaming behavior, or that can potentially cause injury, harm or death due to inability to access water sources and recognize this possibility due to lack of necessary funding or available manpower required for maintenance.

Response: There are no proposals in this PRMP/FEIS to deny access for wild horses and burros to water sources or to develop any specific new water sources.

Comment 971: *For wild horse and burro management: Variations in short term and/or long term climatologically conditions prevent setting AML "optimum numbers." Horses and burros are feral. Their presence in a lengthy drought would require supplemental feeding and watering if any given number are present. Any or all other native populations would be severely impacted or eliminated. Total removal of all horses and burros is the best scientific alternative.*

Response: To date, the YFO within the Cibola-Trigo HMA has never supplemented either water or feed to maintain the existing population. This would be contrary to the intent and letter of the Wild Free-Roaming Horse and Burro Act of 1971 (PL 92-195). No data, specific to the Cibola-Trigo HMA, has been presented wherein wild horses or burros have adversely impacted native populations.

Public Concern 6: Livestock Grazing

Comment 793: *The BLM needs to take care of the wild horses and burros. The preservation of these animals needs to be a higher priority than the sheep and cattle that take the horses land.*

Comment 940: *BLM seems to be giving preferential treatment to private ranching interests in favor of all Americans who have a strong interest in maintaining wild horse herds on public lands.*

Response: Livestock grazing occurs on a small portion of the HMA with a season of use from November through April. Under the Proposed Plan, grazing allotments within lands available for grazing would be classified as ephemeral or perennial/ephemeral. According to the Special Ephemeral Rule found in Appendix 2-D, livestock grazing would not be authorized in the planning area during drought conditions; however, wild horses and burros would continue to utilize forage within the HMA.

Public Concern 7: Genetic Diversity

Comment 808: *Do you have current mtDNA and heterozygosity data on the wild horse and burro herds there in Arizona? If not, you should not proceed with any further reductions until you know that the removals will not have an adverse effect on genetic variability. It is also my recommendation that you should stay away from some of these long term birth control drugs that could effectively destroy herd structure.*

Response: DNA data has been collected on wild burros for several years in the Cibola-Trigo HMA. There is no DNA data available on the wild horses at the current time. The PRMP/FEIS does not anticipate the use of fertility control in YFO due to the extreme environmental conditions.

Comment 1020: *No further reductions in appropriate management levels (AML's). The currently established AML's conform to recognized population levels that assure genetic viability and prevent inbreeding. Any reductions would compromise this conformance and affect the self-sustaining abilities of the populations.*

Response: The AML_2s would continue at the same levels originally established in the Cibola-Trigo Management Plan (USDOI BLM 1980). Any future adjustments in the AML_2s would be based upon monitoring data being collected.

Public Concern 8: Habitat/Vegetation Composition

Comment 1028: *Due to the prolific amount of Areas of Critical Environmental Concern, Wildlife Refuges, Conservation Areas, Wilderness Study Areas, Military Installations, elevation and terrain factors, etc., provide actual habitat, rangeland forage production and water availability that can realistically be utilized by wild horse and burro populations within the HMAs.*

Response: The HMA, as proposed by this PRMP/FEIS, contains all resources necessary to maintain the AML_2 for horses and burros within the Cibola-Trigo HMA.

Public Concern 9: Specially Listed Species

Comment 1029: *Clearly describe and provide supporting data regarding documented effects of wild horses and burros in areas that are of special concern or require specialized management such as desert tortoise habitat. Generalized statements that they "may" effect a resource without supporting data is insufficient to justify extreme management actions that are known to have permanent, adverse consequences to wild horses and burros or their habitat requirements.*

Provide classification of threats to desert tortoise and other species that require special management attention expressed as percentages of expected affects and their priorities; e.g. habitat fragmentation-30%, raven depredation-17%, and so on.. If necessary to reduce impacts to other species within affected areas, provide data and documentation of those impacts and propose plans that establish livestock reductions or removals taking precedence over wild horse and burro reductions or removals.

Response: Any future implementation level, site-specific actions in response to protected species which would affect wild horses and burros would be analyzed in subsequent, site-specific NEPA analysis and would be subject to public review.

Comment 1000 (ADWR): *P. 4-114, F. It does not seem likely that feral horse and burro use of the planning area is likely to be precluded by other uses in the foreseeable future. Adverse impacts of feral horses and burros on native vegetation are more of an issue.*

Response: Management of wild horses and burros by law and regulation, includes the collection of monitoring data to ensure that adverse impacts to habitat do not occur.

Public Concern 10: Future Generations, Legacy Values

Comment 534: *Our wild horses and burros are a part of our heritage and a national treasure. They made the exploration and settlement of America possible.*

Comment 816: *They are an icon for the west and for you to not provide for their best interest would be shameful.*

Comment 842: *Wild horses and burros "contribute to the diversity of life forms within the nation and enrich the lives of the American people."*

Response: The BLM does consider wild horses and burros to be an important heritage resource. The Wild Free-Roaming Horse and Burro Act provides appropriate protection of habitat utilized as of 1971 and would continue to do so.

Public Concern 11: Animal Rights, Ethical Treatment

Comment 561: *Stop the slaughter!*

Comment 686: *Many populations have been subjected to "culling" with great suffering on the part of individual animals. I ask you to give these animals the full protection they deserve in Arizona.*

Comment 759: *The BLM has hired wranglers that have tortured and kicked burros. There is a video the rescue groups are sharing showing a wrangler hired by BLM kicking the head of burros during a round up, and baby burros legs tightly tied and screaming in agony. This is animal abuse and in the state of Arizona, is a crime subject to fines and prison. It certainly leads to a lack of trust in the agency given the responsibility to care [for] the wild horses and burros.*

Response: The YFO follows national BLM policies for removals and adoption processes. If you would like more information about the Wild Horse and Burro program please refer to our national web page at: http://www.blm.gov/wo/st/en/prog/wild_horse_and_burro.1.html.

Comment 1252: *Inhumane methods of gathering these animals should be eliminated, including helicopter round ups and other use of motorized vehicles...these are living organisms, not machines.*

Response: The Wild Free-Roaming Horse and Burro Act of 1971, as amended, authorizes the use of helicopters to assist in removal of wild horses and burros. The BLM conducts gathers in the most humane way possible to ensure the safety of not only personnel, but the animals. Within the State of Arizona, very few animals are seriously injured or die as a direct result of removal operations.

Public Concern 12: Other Adjacent Federal Lands

Comment 1462 (YPG): *On page 2-76 and 2-157, although the HMA is to be reduced by approximately 30%, the AML is proposed to remain 165 and 150 for burros and horses, respectively. I recommend YPG be collaborated with in periodic population and habitat monitoring, water development projects, and decisions regarding changes to AML, as much of the HMA is on YPG and horse and burro management has the potential to impact military mission, personnel safety, and management of other wildlife on the installation.*

Response: The YFO will continue to work collaboratively with YPG in accordance with existing agreements.

Comment 1023: *Provide specific information regarding management plans of wild burros within the Imperial and Cibola NWR's. This would include impacts and reasons for proposals and specific, detailed plans that clearly delineate why "minimizing burro use within these areas" is necessary and what those plans entail.*

Response: The Wild Free-Roaming Horse and Burro Act of 1971, as amended, authorizes the Secretary of the Interior to manage wild horses and burros on public lands under the jurisdiction of the BLM. NWRs are not part of herd management areas or herd areas as authorized under the law. Therefore, these NWRs acknowledge that access to the Colorado River is necessary but does not meet the agency objectives for the refuges, and have agreed to allow access with

minimum impact to the refuge.

10. Visual Resources Management

Public Concern 1: Clarification of Information

Comment 1034 (YVRGC): *We are not aware of any detailed description of what is specifically allowed or disallowed in any of the VRM classifications. Without the knowledge of how these classifications might impact the lands, we cannot advocate their use, and we are therefore opposed to the use of VRM classifications within this document.*

Response: FLPMA requires the BLM to maintain a working inventory of the scenic values of the public lands, and the BLM Land Use Planning Handbook requires the BLM to designate VRM classifications. The purpose of VRM classifications are to identify, evaluate, and determine the appropriate management of the public lands' scenic values. BLM Handbooks on VRM and Visual Resource Inventory (8400 and 8410-1) provide guidance on the classification and management of visual values on the public lands, and are available online or upon request. Desired Future Conditions for each of the four VRM classes are outlined in Section 2.13.

Comment 1011 (City of Yuma): *In reference to the Visual resource classifications II and III, which includes the Gila Mountains area. It is recommended that the eastern (Wellton side) and western portions (Yuma side) of the Gila Mountains area be managed in similar management procedures. Low to moderate changes in landscape characteristics on BLM land should include minimal surface disturbance.*

Response: All alternatives of the PRMP/FEIS propose to designate most of the highest peaks of the Gila Mountains as a VRM Class II, where changes to the characteristic landscape should be low and changes should not attract the attention of the casual observer. Public lands within the Gila Mountains already encumbered by I-8 and the Telegraph Pass Communications Site are proposed as VRM Class III. Under the Proposed Plan, non-mountainous public lands on the eastern and western side of the Gila Mountains are proposed as VRM Class III.

Public Concern 2: Wildlife Structures

Comment 1187 (Arizona Desert Bighorn Sheep Society): *With the preferred alternative we are concerned with the significant increase in Visual Resource Management (VRM) Class 2 lands from previous Class 3 lands. It remains unclear if this enhanced VRM classification will become an obstacle or burden to wildlife conservation activities such as maintaining and constructing wildlife water catchments. We would hope that the Final RMP would more clearly articulate what is allowed or prohibited within these varied VRM classifications so that there are no future misunderstandings. VRM classifications should not be an obstacle to the activity but rather a prescription on how it is to be conducted.*

Response: BLM and the AGFD would continue to coordinate on potential wildlife conservation activities, such as maintaining and constructing wildlife water catchments. The purpose of VRM classifications is to prescribe how impacts to visual resources should be mitigated. As wildlife water catchments are increasingly being constructed or enhanced to better blend into the

surrounding landscape, it is doubtful that a VRM Class II allocation would preclude such a project from taking place. All VRM class objectives are considered national BLM policy, and the YFO does not have the authority to include additional allowances for each respective VRM class as suggested.

11. Lands with Wilderness Characteristics

Public Concern 1: Adequacy of Analysis

Comment 1182 (Arizona Desert Bighorn Sheep Society): *With a combined total of 167,800 acres there is already enough designated BLM wilderness within this planning area and the DRMP/DEIS presents no justifiable or documented need to provide additional opportunities for solitude, naturalness and primitive recreation by establishing new MWC land allocations within the Yuma planning area. In addition, the cumulative effect of other huge expanses of designated wilderness within the boundaries of this planning area, i.e., the KOFA and Cabeza Prieta wilderness areas should have been included in the analysis.*

Response: The primary purpose of identifying lands with wilderness characteristics is to maintain existing opportunities to experience naturalness, solitude, and primitive and unconfined types of recreation, not to provide additional opportunities for these experiences. Section 4.15.P of the PRMP/FEIS has been updated to include the cumulative impacts from the existence of other designated Wilderness Areas within and adjacent to the planning area, including the Kofa and Cabeza Prieta Wildernesses. However, the identification of lands with wilderness characteristics has not been included as an impact to public access because the Proposed Plan of the PRMP/FEIS does not propose to alter existing motorized or non-motorized access within these areas.

Comment 848: *When the Arizona Desert Wilderness Act was passed, the following areas, Little Horn Mountains, Little Horn Mountains West, and the East Clanton Hills were specifically deemed unsuitable for wilderness, inventoried by the BLM and did not qualify. They were inventoried for solitude, naturalness, and primitive unconfined recreation. The exact same qualities as defined under the MW's on page 2-105...the Little Horn Mountains, Little Horn Mountains West, and the East Clanton Hills should not be included for the MW's because these areas were specifically referenced in the law as having been inventoried by the BLM and deemed to be unsuitable, qualities were not of sufficient value.*

Response: BLM policy outlined in IM No. 2003-275 – Change 1 does not preclude identification of previously inventoried areas.

Comment 1100 (Center for Biological Diversity et al.): *Affected Environment section 3.10 Wilderness Characteristics. In May of 2004 and again in August of 2005 the Arizona Wilderness Coalition submitted recommendations to the Yuma BLM during the process that outlined which lands we recommended be evaluated for wilderness characteristics based on our analysis and how this could be carried out. In both sets of comments we reiterated our recommendations based on the policy direction given under IM No. 2003-275-Change 1 that all three wilderness characteristics need not be outstanding in order to protect one or more elements of wilderness*

character in a given unit. Please review our previous comments for a detailed review of our previous rationale.

Comment 1181 (Arizona Desert Bighorn Sheep Society): *It is our firm belief that Section 102 of the 1990 Arizona Desert Wilderness Act (ADWA) clearly released these and all other BLM lands within Arizona from further wilderness consideration and to peck away at this fundamental understanding with the establishment of MWC's further erodes any remaining trust that we might have regarding wilderness. The current advancement of MWC's is clearly a move by the wilderness lobby to administratively gain more wilderness ground from lands that were inventoried previously and found not to contain wilderness character. Further advancing additional wilderness preservation with the MWC land allocation betrays the basic tenants of the Federal Land Policy and Management Act (FLPMA) that prescribes management for multiple use and sustained yield and only a single wilderness inventory iteration. For BLM lands that inventory was completed with the ADWA in 1990. By definition true natural wilderness cannot be manufactured but that is essentially what BLM is errantly attempting to do by establishing MWC land allocations.*

Response: Policy outlined in IM No. 2003-275 – Change 1 authorizes BLM to consider wilderness characteristics in land use planning decisions when BLM determines that those characteristics are reasonably present, of sufficient value and need, and are practical to manage. Alternative D of the DRMP/DEIS and PRMP/FEIS proposed and analyzed identifying 301,200 acres of public lands to maintain wilderness characteristics. Considering wilderness characteristics in the land use planning process may result in several outcomes, including, but not limited to 1) emphasizing other multiple uses as a priority over protecting wilderness characteristics; 2) emphasizing other multiple uses while applying management restriction (conditions of use, mitigation measures) to reduce impacts to some or all of the wilderness characteristics; 3) emphasizing the protection of some or all of the wilderness characteristics as a priority over other multiple uses (though the area will not be designated a WSA). The Proposed Plan of the PRMP/FEIS proposes to identify 48,400 acres of land to maintain wilderness characteristics. Under the Proposed Plan, other lands were not identified to maintain wilderness characteristics primarily due to the impracticality of maintaining wilderness characteristics on additional acreages within the planning area. In addition, the BLM, Kofa NWR, Imperial NWR, and Cabeza Prieta NWR collectively manage approximately 1,366,200 acres of designated Wilderness within or adjacent to the planning area where wilderness values are already statutorily maintained. Under the Proposed Plan, a majority of the lands proposed by the Arizona Wilderness Coalition that are not identified to maintain wilderness characteristics are proposed as VRM Class II, a Desert Mountains WHA, the Palomas Plain WHA, and/or a Wildlife Movement Corridor WHA. All of these proposed allocations prescribe Management and Administrative Actions to protect the natural, cultural, and visual resource values of these lands.

Comment 1382 (AGFD): *Page 2-175, Table 2-32, 2nd row, Preferred Alternative, RMP Statement-None identified: There will probably be impacts to wilderness characteristics during hunting seasons.*

Response: Table 2-32 of the PRMP/FEIS was revised and impacts of hunting were reconsidered as a cumulative impact and impact to wilderness characteristics from recreation.

Public Concern 2: Clarity of Information

Comment 1097 (Center for Biological Diversity et al.): *Table 2-28 Wilderness Characteristics Management Actions by Alternative. We would like to see management actions more similar to that described in AWC's comment letter submitted April 11th 2005. A clarification is needed in the table or on page 2-107 regarding the Project Criteria. The first cell of table 2-28 addresses surface-disturbing activities and in parentheses at the end of this section the reader is directed to the Project Criteria. It is unclear if the Project Criteria applies to all management actions or just this one. We are generally supportive of these management actions only under the application of the Project Criteria to all actions. Please clarify in the final document.*

Response: The document was clarified so that there is a clearer connection between the Project Criteria and the first Management Action in Table 2-28.

Public Concern 3: Laws and Policies

Comment 847: *On page 2-104 of the RMP it states, "...to be managed to maintain wilderness characteristics in LUPs and prescribing goals, objectives, and management actions that would maintain the wilderness characteristics." BLM's Land Use Planning Handbook (H-1601), Appendix C, page 12, item K, states, "Identify decisions to protect or preserve wilderness characteristics..."It is clear that BLM has the authority to manage MWC's to maintain and protect qualities. However, under the desired future conditions on page 2-105 it states, "...maintained or enhanced." BLM does not have the authority to enhance MWC's. Maintaining and enhancing are not the same, and if BLM thinks they have the authority to enhance they should provide proof of this authority in the RMP.*

An example of this difference can be found in the management actions on page 2-106. "Reclaim sites and areas affected by human activities when such places are no longer needed for authorized land uses." This is clearly an enhancement, much more than maintaining to protect and preserve. This action should be removed. MWC's are already pressing legal limits; BLM must adhere strictly to the exact direction of the guidance provided.

Comment 1375 (AGFD): *Page 2-105 and 2-172, 2.14 Desired Future Conditions, RMP Statement-"wilderness characteristics would be managed to be maintained or enhanced." Please remove the word 'enhance'. The referenced Instruction Memoranda (IM) on wilderness characteristics (page 2-104) provides national guidance on considering wilderness characteristics in the land use planning process. The IM states, "lands with wilderness characteristics may be managed to protect and/or preserve some or all of these characteristics." The word "enhance" is not used in the national IM. The Department believes there is a significant difference between managing to protect and preserve, and managing to enhance. Therefore, Desired Future Conditions (DFSs) and management prescriptions to enhance wilderness characteristics are outside of the scope of the national IM guidance and policy. We believe managing to enhance wilderness characteristics is inconsistent with national policy and all references to enhancing wilderness characteristics should be removed from the document.*

Response: The references to "enhancing" wilderness characteristics have been removed from the PRMP/FEIS. However, the BLM will continue to meet its statutory obligations to enhance resource values across all public lands within the planning area over the life of the RMP. The enhancement of the resource values of the public lands is one of the core responsibilities of the BLM. FLPMA of 1976 is titled "An Act to establish public land policy; to establish guidelines for its administration; to provide for the management, protection, development, and enhancement of the public lands; and for other purposes." In addition, Arizona BLM policy outlined in IM AZ-2005-007, State Director Guidance for Arizona Land Use Planning Efforts, instructs field offices to describe Desired Future Conditions for wilderness characteristics using the verbs "maintain, enhance or manage." Therefore, the BLM is authorized by both statute and policy to "reclaim sites and areas affected by human activities when such places are no longer needed for authorized land uses" when land use planning decisions have been made to preserve and protect opportunities to experience naturalness, solitude, and primitive and unconfined types of recreation. As required under NEPA, the BLM would consider future proposals to enhance identified wilderness characteristics on a case-by-case basis in cooperation with other interested stakeholders.

Comment 1184 (Arizona Desert Bighorn Sheep Society): *If BLM believes that these lands contain natural resources worthy of protection and preservation we would suggest that you instead identify them as 'wonderful areas' and provide protection with the same existing palate of management tools and prescriptions. If the stated intentions of MWC's are true and sincere then the word 'wilderness' is not needed and it could easily be removed from the term. We therefore must request, once again, that any reference and use of the word 'wilderness' be removed from this land use allocation description. Any further reluctance to do so only confirms our fears that this new land allocation is akin to administratively creating more wilderness and that the resulting management practices employed by BLM staff in the future will be found unlawful.*

Response: Though your suggestion has merit, the YFO must follow Arizona BLM policy outlined in IM AZ-2004-021. This policy suggests naming these areas as "lands with wilderness characteristics or areas having wilderness characteristics…" This memo was developed to provide some consistency to the way these lands are identified throughout the different BLM field offices within the State. Management actions outlined in Table 2-28 propose how lands with wilderness characteristics would be managed in the YFO. These actions are not akin to management under the Wilderness Act of 1964.

Comment 422: *Wilderness Characteristics should not be designated in the plan... Wilderness Characteristics are unlawful as they were evaluated by congress for wilderness designation in 1990 and did not meet the designating criteria. This could possibly result in a congressional inquiry.*

Comment 1033 (YVRGC): *The Club is opposed to all areas in this Plan and others throughout the state, to be managed for wilderness characteristics. These lands have already been considered for Wilderness designation, as Wilderness Study Areas, and were not shown to exhibit the character of Wilderness at that time. We firmly believe that no further consideration should be given to these lands for any special land use designations.*

Comment 1180 (Arizona Desert Bighorn Sheep Society): *The [Arizona Desert Bighorn Sheep Society] ADBSS remains fundamentally opposed to the new land allocation that prescribes management to Maintain Wilderness Characteristics (MWC). This implied designation is akin to establishing a wilderness minded management mentality for lands that have not been formally identified by Congress as worthy of wilderness designation or study. Our organization has decades of experience with wilderness and the full compliment of varied wilderness management practices it yields. This experience has shown that wilderness, and wilderness management in particular, has done more harm than good to Arizona's wildlife populations. The real or perceived restrictions associated with wilderness management have become unbearable obstacles to active wildlife management and conservation activities.*

Comment 906: *BLM must remember not to take or propose any action that effectively imposes Wilderness under the guise of managing for wilderness characteristics and or primitive recreation. Should this occur, and said actions become final, they will be unlawful.*

Response: The YFO followed BLM policy outlined in IM No. 2003-275 – Change 1, when developing proposals to identify lands with wilderness characteristics. Lands with wilderness characteristics would be managed according to the management prescriptions included in Table 2-28 and not according to the Wilderness Act of 1964 or under the non-impairment standards of Wilderness Study Areas.

Public Concern 4: Wildlife Management

Comment 1183 (Arizona Desert Bighorn Sheep Society): *As a consequence of our deep aversion to MWC's we respectfully must object to the creation of the two MWC allocations identified in the preferred alternative (48,400 acres total and apparently located in the Little Horn, Palomas and Tank Mtns.) because of the unknown impacts to future wildlife conservation activities. There simply does not appear to be sufficient implementation level guidance to allow an accurate evaluation of the impacts to active wildlife*

Response: Table 2-28 in Section 2.14 lists several management actions specifically meant to provide additional implementation-level guidance within lands with wilderness characteristics. Wildlife management activities would not be precluded within lands with wilderness characteristics. BLM would continue to coordinate with the AGFD to ensure that all wildlife management activities remain compatible with both agencies' respective missions.

Comment 1377 (AGFD): *Page 2-106, Table 2-28, 3rd row, RMP Statement-Authorize new structures…: We recommend adding this action to the preferred alternative.*

Response: YFO removed this Management Action from the PRMP/FEIS because it was redundant with the first Management Action listed in Table 2-28. According to this Management Aaction, new structures, including roads and trails, could be approved if they meet the project criteria associated with Table 2-28.

Comment 1378 (AGFD): *Page 2-106, Table 2-28 Management Actions, RMP Statement-None: The Department recommends adding a management action that states: Allow for wildlife,*

wildlife waters, and wildlife habitat management actions.

Response: YFO considered your comment but made no revisions to the indicated Management Action in the PRMP/FEIS. The activities you describe are allowed in Section 2.14 Management Action #1 for wilderness characteristics.

Public Concern 5: Roads, Trails, and Transportation System

Comment 308: *Areas with wilderness characteristics should be protected and not allowed to degrade because of OHV or other adverse effects.*

Response: Table 2-28 in section 2.14 identifies several Management Actions the BLM would use to maintain wilderness characteristics.

Subconcern: Protection of Public Access

Comment 1303 (Huachuca Hiking Club): *On page 2-105, Table 2-27 shows that 48,400 acres are proposed for management of wilderness characteristics in the preferred alternative, representing an area in the Little Horn Mountains and an area in the Palomas Mountains. From a regional perspective, it should be noted that the YFO planning area already includes 167,800 acres of Congressionally designated wilderness, plus adjacent lands within the Kofa National Wildlife Refuge include another 546,700 acres of Congressionally designated wilderness. There are many who feel that adding more lands for management of wilderness characteristics will further reduce the range of recreational opportunities that draw visitors to the area, and that resources could be better applied to management and protection of the Congressionally designated wilderness areas. Also, it may be possible for BLM to manage the Little Horn Mountains and Palomas Mountains using the recreation opportunity spectrum to achieve the same intent, i.e., manage for a unique niche as a primitive recreation management zone. If these areas are proposed for management of wilderness characteristics in the Final RMP, suggest that, as a general rule, existing routes that border or lie within these areas remain a part of the transportation network to ensure adequate public access to these areas.*

Comment 1098 (Center for Biological Diversity et al.): *Convert old vehicle routes to use for bicycles, equestrian, and hiking. Allow primitive and unconfined recreational activities not bicycles, which is a form of mechanical transport that does not fall under primitive recreation. The IM 2003-275 clearly describes opportunities for primitive recreation as "where the use of the area is through non-motorized, non-mechanical means, and where no or minimal developed recreation facilities are encountered." The preferred alternative should prohibit mountain bikes in areas managed to maintain wilderness characteristics.*

Response: The Proposed Plan does not propose to close any existing inventoried motorized routes within the 48,400 acres of lands identified to maintain wilderness characteristics. During the development of future Travel Management Plans, all inventoried routes, including the individual routes within lands with wilderness characteristics, would be systematically evaluated according to the criteria outlined in Section 2.12.2.B of the PRMP/FEIS. The public will be provided with additional opportunities to participate in the development of the future Travel Management Plans.

11. Law and Policy Enforcement

Comment 453: *Monitor [the desert's] use and prosecute the offenders.*

Comment 966: *We believe there should more enforcement of existing laws.*

Comment 1197 (Arizona Desert Bighorn Sheep Society): *We would also hope that the Yuma Field Office could better channel their law enforcement efforts towards natural resource protection rather than relying on additional restriction and closures.*

Comment 1306: *There must be a strict law enforcement policy with substantial fines to ensure compliance of legal OHV use on designated roads following the "closed unless open" rule.*

Response: The YFO makes every attempt to enforce the rules and regulations for public lands with the resources available. Monitoring public lands for any type of illegal activities, including vandalism and looting of cultural resources, as well as damage from unauthorized OHV use, is an ongoing and challenging task and BLM shares this responsibility with other land managers as well as State, county, and local agencies. Due to the limited staff resources, large and remote areas to monitor, and variety of criminal activity, BLM must rely on the public's assistance and volunteers such as the Arizona Site Steward Program to report illegal activity and degradation on public lands. Cross-country vehicle travel is prohibited by Arizona and California State law and Federal policy.

Comment 234: *The laws, there is no laws really for off-roaders. At least they're not being enforced. You're talking about the development areas in here, but you only have about like 1 ranger to cover about what, in Needles they only have 1 ranger, I heard about Yuma only had 1 rangers. You think they can handle all of this? You don't think that our areas are going to be destroyed? They're getting destroyed and their pretty well destroyed but our group here, we're trying our best and we're going to do our job is to try to protect these areas. Hopefully the BLM will work with us or we can work hand in hand. Like those intaglios there, they're not, all the figures out there are still not fixed, they're still not protected. That whole area's not protected....The Chemehuevi Birthing Rock, people hunt out there all the time and they come see this, for I understand, deers and chutlers, quails and doves, just go out there. And a lot of time you just got hunters from the other side of the mountains, they shoot at anything that moves, and don't even move, they'll still shoot at it. I didn't feel happy about when I went to one of these meetings, about hunters going into the area, and I explained why. And I'm going to explain to you, too. The birthing rock area to us is like a church, special areas of prayer, and it don't feel good that they come out and hunt at our church area.*

Response: The PRMP/FEIS contains Management Actions in Section 2.15 to manage and protect cultural resources. BLM will continue to work with Native American tribes to identify and protect traditional use areas and sacred sites from recreational impacts.

Comment 647: *In managing people there must be enforcement of rules and regulations. We have witnessed speeding in the LTVA areas. We have witnessed the results of dumping black and gray water from an RV in all areas, 14 day areas, LTVA areas and in other BLM areas. We have witnessed RVs parked all winter in 14 day areas. Some are in locations over a mile from*

paved highways. We have seen pick up trucks with 50 or 100 gallon water tanks filling at South La Posa. They don't seem to return 50 or 100 gallons of waste water.

Response: Violations of public land rules and regulations should be immediately reported to the BLM YFO at 2555 East Gila Ridge Road, Yuma, Arizona 85365 or at (928) 317-3200.

Comment 377: *In the 10 plus years I have been traveling the desert in the Quartzsite area, I have encountered no enforcement officers, how do you propose to enforce any new regulations and trail closures?*

Comment 1305: *As a former federal law enforcement officer (LEO) who enforced OHV type laws, I know BLM officers would never be able to patrol and enforce the widespread traffic on new roads. The agency's LEO program is markedly understaffed and increased staffing with dedicated field LEOs is critical.*

Response: As with all proposals included in the PRMP/FEIS, implementation, planning, monitoring, and enforcement of travel management policies would be completed as staff levels and Federal funding from the President's budget allow.

D. ACCESS AND TRAVEL MANAGEMENT

1. Transportation System Management

Public Concern 1: Adequacy of Analysis

Subconcern: Natural Resources

Comment 1109 (Center for Biological Diversity et al.): *The DRMP/DEIS contains little evidence that the BLM's proposed ORV Management Area designations would do much, if anything, to reverse the currently unacceptable status quo with respect to damaging ORV use. Examples of the extent and magnitude of on-going ORV-related degradation that would continue under the Preferred Alternative is evident in numerous places throughout text of the DRMP/DEIS and are summarized in Appendix A. Yet the ORV Management designations under the Preferred Alternative would do nothing to prevent or reverse the trend of ORV-related degradation in the short term. Moreover, relying on a policy that would limit ORV use throughout most of the planning area to "Existing Roads and Trails" (pending official route designation in a series of forthcoming Travel Management Plans) is similar to the BLM's failed strategy as applied in the existing RMPs. As a result, the Preferred Alternative fails to prevent unnecessary or undue degradation of public land resources and does little to minimize the adverse impacts of ORV use.*

Comment 419: *BLM wants to close roads, does not provide impact analysis of open roads. Where are the impacts?*

Response: The ecological impacts of roads and OHV travel is acknowledged throughout Chapter 4 in sections such as Impacts to Wildlife Management, Vegetation Management, and Cultural Resource Management from Travel and Recreation Management. Through Management

Actions found in Chapter 2 of this PRMP/FEIS, we attempt to minimize the ecological impacts from OHVs by limiting travel to existing inventoried roads in order to reduce further route proliferation. In addition, several additional Closed OHV Management Areas are included in the Proposed Plan in order to protect soils, wildlife habitat, vegetation, and cultural resources from degradation.

BLM considered the cumulative impacts of existing motorized access policies on surrounding agency lands, including those of the Kofa NWR, Imperial NWR, Cibola NWR, Cabeza Prieta NWR, YPG, and the BMGR when developing the OHV Management Area proposals included in the PRMP/FEIS. The Proposed Plan of the PRMP/FEIS proposes to designate 5,100 acres of new Closed OHV Management Areas for resource protection purposes, which would result in the closure of six miles of inventoried routes. The Proposed Plan of the PRMP/FEIS proposes to limit motorized travel to 4,600 miles of existing inventoried routes across approximately 1,145,100 acres, or 88 percent of the BLM-administered lands within the planning area.

Comment 1157 (Center for Biological Diversity et al.): *Habitat Fragmentation from Roads: Travel Planning Methods to Safeguard Bureau of Land Management Lands. The Wilderness Society. May 2006.*

Key Points:

- *Habitat fragmentation from roads presents a major threat to the survival of wildlife populations throughout the United States.*
- *In the United States, the public lands managed by the Bureau of Land Management (BLM) provide much of the remaining intact habitat— untouched by roads and unaffected by fragmentation from human activities—for a wide variety of species, particularly in the West.*
- *The travel management planning process provides the most logical and effective context within which to evaluate the current level of habitat fragmentation and take steps to reduce it.*
- *Robust and well-accepted metrics exist to measure habitat fragmentation and help design strategies to protect and improve wildlife habitat.*
- *Measuring and addressing habitat fragmentation is consistent with the BLM's legal obligations and its duties as a steward of the public lands.*
- *The BLM can and should use various analytical methods as part of its travel management planning process to ensure that decisions are based on an understanding of existing habitat fragmentation and its impacts on wildlife, and to develop road networks that will minimize future habitat fragmentation.*

Response: YFO will work closely with State wildlife agencies and use various analytical methods during the development of Travel Management Plans to minimize habitat fragmentation.

Comment 317: *The BLM's preferred alternative simply does not consider these impacts in the analysis of environmental consequences to cultural, natural, and even long term economic factors. There's nothing wrong with providing road access to the public lands, but the preferred alternative leaves way too many ORV routes open and only closes 1,100 acres of land to OHV*

travel while opening an additional 2,000 acres to cross country travel.

Response: The Proposed Plan of the PRMP/FEIS does not propose to designate any additional acres of Open OHV Management Areas. This would prevent additional impacts to natural and cultural resources from allowing cross-country vehicle travel within these areas. The Proposed Plan also proposes to designate 5,100 acres of Closed OHV Management Areas to protect soils, wildlife habitat, vegetation, and cultural resources from motorized use.

Comment 1118: *The DRMP/DEIS Does Not Adequately Address the Impact of ORV Travel in Washes. In all the Travel Management sections wash/arroyo travel is only addressed in 2.12.2 by stating that all drivable washes that are not addressed in the route designation process will be closed to travel. Allowing wash travel causes damage to wildlife habitat and causes direct disturbance to many species. Because of the increase in vegetation and down cutting around washes they provide thermal cover for wildlife during the hot summer months and normally have the highest abundance of forage, nesting habitat, and access to water during other times of year. Many users believe driving in washes is the least damaging to the environment because when it rains tire tracks disappear and there is no significant erosion evident, but they fail to realize that such use causes direct disturbance to wildlife and results in compaction of soils in washes as well as erosion where routes enter and leave washes. The BLM must address wash travel in the affected environment section of the EIS and close all washes to motorized vehicles in the preferred alternative, except in situations where major routes either cross or travel in washes for short distances.*

Response: The PRMP/FEIS includes an inventory of roads, trails, drivable desert washes, and other linear features within the planning area. All routes will be evaluated and designated within subsequent Travel Management Plans based on the evaluation criteria listed in Section 2.12.2.B. The YFO will consider the impacts of motorized travel within desert washes at this time. In addition, the impacts from motorized travel to wildlife and wildlife habitat, including within desert washes, has been updated in Section 4.4.B.4 of the PRMP/FEIS.

Subconcern: Air Quality

Comment 1159 (EPA): *Based on our review, we have rated the DEIS as Environmental Concerns--Insufficient Information (EC-2) (see enclosed "Summary of Ratings"). We have concerns regarding environmental impacts from off-highway vehicles (OHV), particularly in non-attainment areas, and the lack of clarity on the BLM OHV Travel Management Network planning process.*

To address air quality impacts, EPA recommends restricting OHV use in non-attainment areas and implementing mitigation measures to reduce the impacts of OHV use to air quality. EPA specifically recommends that the BLM not open the Blaisdell OHV Management Area because of potential air quality and habitat impacts.

Comment 1150 (Center for Biological Diversity et al.): *BLM Directive: ORV "Areas…shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands (43 CFR §8342.1(a) emphasis added).*

ORV-Related Damage that Would Not be Minimized through Implementation of BLM's Preferred Alternative. "The majority of (air pollutant) emissions in Yuma and La Paz counties are attributed to off-highway vehicles, OHV, and miscellaneous sources" (page 3-7). According to Table 3-4, OHV use represents the number one source of PM2.5 in both counties and the highest source of PM10 in Yuma County. For all other pollutants listed, OHVs are second only to emissions from vehicles on local highways. These emissions include VOCs, NOX, CO, and SO2.

Support of Claim that Damage Would Not be Minimized. The DRMP/DEIS states that two new Open OHV Management areas totaling 1,600 acres included within the Preferred Alternative would be located within the PM10 non-attainment area (page 4-8). It then includes the statement that "it is unknown if increased dust emissions would occur from Open OHV Management Area designation because of the existing use of the areas." This statement conflicts with text located elsewhere in the DRMP/DEIS that states "The interaction of OHV users with the landscape would increase with an increase in Open OHV Management Areas" (p 4-103) and with assumptions listed in Section 4.15, Cumulative Impacts, of the DRMP/DEIS that state recreational uses will continue to increase on BLM-administered lands into the foreseeable future (page 4-111).The section on Cumulative Impacts also contains the following statement; "If popularity of OHV traffic continues, particulates and dust in popular recreational areas may exceed standards during periods of extensive use" (page 4-112). However, no statement is made in the DRMP/DEIS regarding actions that would be taken by the BLM to minimize the adverse air quality effects of OHV use both generated within proposed Open OHV areas and throughout the entire planning area, nor is mitigation recommended for the anticipated increase in air emissions.

Response: Section 2.12 of the PRMP/FEIS has been updated to further clarify BLM travel management policies. The Proposed Plan of the PRMP/FEIS does not propose to designate any new Open OHV Management Areas within the entire planning area, which includes the Yuma County PM_{10} non-attainment area. The restriction of OHV use within non-attainment areas and the development of other mitigation measures to reduce this activity's impacts to air quality will be considered during the development of future Travel Management Plans. Impacts to air quality have been identified in Section 2.12.2.B of the PRMP/FEIS as one of the route evaluation criteria that the BLM would consider prior to proposing route designations in the future.

Public Concern 2: Clarity of Information

Comment 1115 (Center for Biological Diversity et al.): *The Definition of Routes Maintained by Other Government Entities Appears Ambiguous and Needs Clarification. Section 2.12.3 of the DRMP/DEIS states that "All paved roads and gravel/dirt roads maintained by a State, county, or city would automatically be open or limited for motorized use in the (Travel Management Network)." While this makes sense for almost any paved or graveled roads that were legally constructed and maintained by these entities, the RMP must include a definition of what constitutes a road so the public can discern whether or not the current definition applies to roads constructed by the federal government. At present, the definition implies that any dirt road that another government claims it maintains "albeit infrequently or only once" would never be considered for closure in future travel management plans. This appears to be in violation of*

BLM's statutory authority under 43 CFR §8341.2 and could prove problematic for BLM management in cases where it becomes known that the federal government constructed the route, or that the route was not legally constructed, and that ongoing use of the route could result in unacceptable adverse effects to resources on public lands.

Response: The terms and definitions used in BLM travel management efforts have been updated throughout the text and glossary of the PRMP/FEIS. These updated definitions come directly from the BLM Roads and Trails Terminology Report (USDOI BLM 2006a). The use of these terms and definitions was established as national BLM policy through Washington Office IM No. 2006-173, Implementation of Roads and Trails Terminology Report, and Arizona BLM policy through AZ IM No. 2005-007, State Director Guidance for Arizona Land Use Planning Efforts.

Comment 1160 (EPA): *We also recommend that the Final EIS include a comprehensive description of the OHV management planning process, including the type of environmental analysis planned in conjunction with the establishment of the Travel Management Network. EPA's recommendations are further discussed in our Detailed Comments (attached).*

Response: Section 2.12.3 of the PRMP/FEIS was updated to include a comprehensive description of how the YFO would inventory, evaluate, designate, and implement future Travel Management Plans.

Comment 1329 (AGFD): *In limited areas, OHV use will be limited to routes on the route inventory map until routes are designated in the Travel Management Plan. Therefore, washes and other trails not on the route inventory map in the limited areas would be closed. This proposed decision to close existing routes (including washes) is not clearly stated.*

Response: Both Chapters 2 and 4 of the PRMP/FEIS have been updated to further clarify the BLM travel management planning process and the impacts of implementing these proposed policies, respectively.

Public Concern 3: General Access

Comment 386: *Please do not close any more areas. The Kofa National Wildlife Refuge, the Colorado Indian Reservation, and the Yuma Proving Grounds to name a few areas, are already closed areas.*

Comment 354: *Please keep the washes open in the Yuma District.*

Comment 209: *There has to be some limitation or we're going to lose all of that. We've lost a heck of a lot of it now. So, what I'm talking about or wishing would happen is that off-roaders would be given land to use, property to use, a place to use. But not all of it. So, there has to be some limitation, to save some of this. Because if it's not saved, I think in another 20 or 30 years it will all be gone, it will just be like sand dunes out there, no native species, no trees, no animals, no rabbits, no coyotes, no nothing. So, I think we ought to let the BLM limit quite a bit of that and save it.*

There's almost no visual field anywhere you go, it's just a maze of a lattice work, a braid of tracks. And, you know that desert has a little crust, anywhere you go, I mean before it's been disturbed, that little crust is hard surface there. And the wind used to blow here as much as it blows now and there was not very much sand in the air. There was almost never would there be a sand storm, and now when the wind just blows a little bit, that sand kicks up in the air cause when that crust is broken, it allows erosion and it allows, it just gets bigger and bigger and it makes a track or road across the desert. After a couple of wind storms it gets bigger and bigger and bigger and it's, huh, these are reasons that I'm saying now. And there used to be a hell of a lot of wildlife, even between here and Yuma, you would find, you know, antlers of deer, and there would be bighorn sheep, there's still very few around, desert bighorns, between here and Yuma and the Gila Mountains. But there used to be a lot of wildlife.

Comment 1304: *Uncontrolled, unregulated public use has irreparably damaged once pristine desert landscapes. I have owned motorcycles, 4x4 vehicles, and I recently purchased an ATV. Those off-highway vehicles (OHVs) should be allowed only on existing designated roads and routes of travel under strictly controlled laws and regulations. However, new roads/trails must not be established or allowed in the planning area.*

Comment 1308: *Do not allow vehicular travel in washes, except for designated route crossings, because the temptation is to drive out of the wash, then across interfluves, then onto areas of fragile desert pavement.*

Comment 619: *We have lost too much riding ground due to "endangered weeds" and the wildlife. We ride and see sheep in other areas outside of the KOFA. They are not on the decrease.*

Response: To the fullest extent possible, when authorized by law and after interdisciplinary environmental analysis, public lands will remain open to public access. It was the will of Congress, as explained in FLPMA of 1976, that the public lands be used by current and future generations of Americans. FLPMA mandates that the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use.

Section 2.12 of the PRMP/FEIS has been updated to further clarify BLM travel management policies. Upon the finalization of this PRMP/FEIS, motorized use within Limited OHV Management Areas would be limited to existing inventoried routes appearing on Maps TMA-1 to TMA-5 until designated. Within five years from finalizing the PRMP/FEIS, BLM policy requires that all inventoried routes within the planning area be designated as open, closed, or limited to motorized use through implementation-level travel management plans. The future travel management plans would provide BLM with the opportunity to systematically evaluate and document individual routes' impacts to a variety of resource values encompassed in the BLM's multiple-use mission. Upon completion of the future Travel Management Plans, motorized use within the planning area would be limited to designated routes only.

The cumulative impacts of other Federal land management agencies' travel management and public access policies have been updated in Section 4.15 B of the PRMP/FEIS.

Subconcern: Native Americans/Tribes

Comment 765 (BIA): *Please consider Executive Order 13007, which assures Native Americans reasonable access to sacred sites on federal land.*

Response: BLM's responsibility to comply with EO 13007 is stated in the introduction to Section 2.25, Cultural Resources and in Appendix 1-B.2, Laws, Regulations and Executive Orders of the PRMP/FEIS. In addition, Cultural Resources Section 2.15.2 includes a Management Action instructing the YFO to "Accommodate requests by Native American tribes for use of, and access to, sacred sites and other places of traditional cultural importance that are identified through government-to-government consultation". Similar statements about the BLM's responsibilities pursuant to EO 13007 can be found throughout the document.

Public Concern 3: Open/Close/Limit Areas

Comment 1110 (Center for Biological Diversity et al.): *Compelling information contained in the DRMP/DEIS appears to support the closure of many proposed special management areas to ORV use. Such closures would appear warranted given the ecological diversity of the 1.3 million-acre planning area and the fact that the level of ORV use and associated adverse impact has increased dramatically within the 20 years since BLM last designated ORV management areas in the region. Indeed, each of the three remaining action alternatives in the DRMP/DEIS propose differing degrees of motorized closures... The Preferred Alternative, however, incorporates no new closures and the DRMP/DEIS lacks adequate explanation regarding their absence.*

In sharp contrast to its utter lack of ORV closures to protect sensitive resources, the Preferred Alternative proposes the designation and expansion of four ORV "Open" areas where unregulated cross-country ORV travel could occur. These Open area designations are proposed despite documentation within the DRMP/DEIS of potentially significant resource conflicts associated with ongoing and proposed cross-country travel. Consequently, the BLM's designation of ORV Management Areas that comprise its Preferred Alternative stands in sharp contrast to that required under FLPMA, which mandates that the BLM act to minimize adverse impacts on public land resources.

Response: Based on public comments, the Proposed Plan of the PRMP/FEIS proposes to designate 3,700 acres of new Closed OHV Management Areas for resource protection purposes in the Dripping Springs ACEC, Sears Point ACEC, and Muggins Mountains SCRMA. The existing 400-acre Ehrenberg Sandbowl would continue to be managed as an Open OHV Management Area; no new Open OHV Management Areas are included in the Proposed Plan of the PRMP/FEIS.

Comment 55: *Eliminate the 1,000 acres of Open OHV Management Area within the Wildlife Habitat Areas and the additional 600 acres within the Sonoran desert tortoise habitat. These vehicles are not compatible with wildlife or wildlife areas.*

Comment 1163 (EPA): *EPA recommends that the BLM not open the Blaisdell OHV Management Area (1,300 acres)...Opening this area would directly impact more than 600 acres of Category III Sonoran Desert tortoise habitat (pg 4-40). Wildlife habitat is more likely to be maintained or enhanced if OHV use were prohibited in this area.*

Comment 56: *Eliminate the open OHV areas in the PM10 non-attainment area as contained in the preferred alternative...Particulates are a human health issue and cause breathing problems for children, the elderly, and anyone with a respiratory ailment.*

Response: The Proposed Plan of the PRMP/FEIS does not propose to designate any additional Open OHV Management Areas within the planning area, which would preclude any additional direct and indirect impacts to soils, air quality, wildlife, cultural resources, paleontological resources, and vegetation from increasing the acreage available to cross-country OHV use. In addition, no Open OHV Management Areas would be designated within identified Sonoran desert tortoise habitat, Wildlife Movement Corridors WHA, Desert Mountains WHA, or PM_{10} non-attainment areas.

Subconcern: Clarity of Information

Comment 1381 (AGFD): *Page 2-171, Table 2-32, 2nd row, Preferred Alternative, RMP Statement- …approximately 6 miles of closed inventoried routes: The department did not see it disclosed in Chapter 2 what roads were going to be closed. This proposed decision needs to be clearly shown in Chapter 2.*

Comment 902: *On page 2-171, BLM is proposing to close 6 miles of roads in Table 2-32. I believe the brief rationale for this closure is not adequate, nor do I know which six miles of roads are going to be closed.*

Response: Table 2-32 and Map 2-9e-1 in the PRMP/FEIS have been updated to more accurately identify which routes would be closed within Closed OHV Management Areas included in the Proposed Plan. The Closed OHV Management Areas included in the Proposed Plan would close existing routes within portions of the Sears Point ACEC, Dripping Springs ACEC, and Muggins Mountains SCRMA to motorized use. Under the Proposed Plan, motorized use on any routes within designated Wilderness and the existing Fortuna Wash (Section 33) and La Paz Valley Closed OHV Management Areas would also continue to be prohibited.

Subconcern: Special Status Animal Species

Comment 464: *Protect historic habitat for the endangered Sonoran pronghorn north and south of Interstate 8 by limiting route densities in habitat areas.*

Response 325: Route density and Sonoran pronghorn historic habitat will be considered during the route evaluation process in future Travel Management Plans.

Comment 361: *I don't think the bighorn sheep need a special reserve. They can co-exist with traffic as they do in southeastern Oregon very well.*

Response: YFO does not have or proposes to designate a special reserve for bighorn sheep. For a description of impacts to wildlife from Travel Management see Section 4.4.

Comment 296: *I further do not believe that the desert tortoise deserves all the money and restriction of area use is justified.*

Response: BLM policy is to conserve the Sonoran desert tortoise and its habitat through the RMP, which requires the mitigation and conservation measures included in Section 2.8.3 E of the PRMP/FEIS.

Subconcern: Cultural Resources

Comment 231: *There's something that concerns me a lot also and that's the reference to the Ehrenberg Bowl that you say there. One of the, they're increasing it to 400 acres or more and one of those mesas, finger mesas that come in there has a very sacred trail that's like a, sort of like a J that goes all the way up to the Dome Rock Mountains and that has a great meaning to us. So, I would like to see how far that 400 acres that you want to increase that Ehrenberg Bowl goes as far as that finger mesa goes in there.*

Response: After re-evaluating the proposal to expand the Ehrenberg Sandbowl an additional 400 acres, YFO ultimately decided that the existing use did not warrant an expansion nor was it appropriate with other resource values. We have revised Section 2.12.1 (Open OHV Management Areas) and Map 2-9e to remove the Ehrenberg Sandbowl expansion from the Proposed Plan.

Subconcern: Dripping Springs

Comment 52: *I support the Off-Highway Vehicle (OHV) Management Area closure of 600 acres at Dripping Springs and 1,400 acres at Sears Point in Alternative D.*

Comment 457: *Closing Dripping Springs is not needed, the [steepness] of wash keeps everyone within the wash and is a very nice ride for older folks.*

Response: The Proposed Plan of the PRMP/FEIS proposes to designate a 400-acre Closed OHV Management Area at Dripping Springs, as depicted on Map 2-9e-1. The proposal would not affect existing motorized access on the north-south route on the western edge of Dripping Springs, which is identified as route LP458 on Map TMA-2 of the PRMP/FEIS. However, the short spur route which heads east from the wash to Dripping Springs (identified as route LP458) would be closed to motorized use for resource protection purposes. YFO has proposed to develop this spur route to allow pedestrian traffic into Dripping Springs, and would consider the needs of the physically challenged during the implementation of this proposal. In addition, an existing hiking trail connecting Dripping Springs to route LP458 south of the spur route already provides a longer, but far less steep approach to the site.

Subconcern: Interstate 10 and Plomosa Road Area

Comment 984: *Do not close trails to Dripping Springs or area north of I-10 Plomosa Road*

area.

Response: The BLM lands near I-10 and Plomosa Road are proposed to be designated as a Limited OHV Management Area, where motorized travel would be limited to existing inventoried routes until designated. If routes in this area do not appear on Map TMA-2: La Posa Travel Management Area, the general public will be provided with an additional opportunity to notify the BLM of their existence during the development of the La Posa Travel Management Plan. In addition, the travel management planning process will also provide the general public with opportunities to identify which particular routes they feel should be designated as open to motorized use.

Subconcern: Wilderness Characteristics

Comment 456: *We do not need to close any more lands under a guise of wilderness.*

Comment 982: *There seems to be enough wilderness area set aside. If the area is closed we will sure miss it.*

Response: The Proposed Plan of the PRMP/FEIS does not propose to designate any Closed OHV Management Areas in lands with wilderness characteristics.

Subconcern: Economic Impacts

Comment 632: *The economy in the Quartzsite area depends largely on the snowbirds, who are mostly elderly, who come to this area to enjoy the desert and surrounding areas. I feel that if you were to close some of these areas, it would have a great effect on the economy of this area.*

Comment 871: *We come here from Michigan to spend all our money and ride our quads. I'd hate to have to find a new area!*

Response: BLM considered the economic impacts of the Closed OHV Management Area proposals included in the PRMP/FEIS. The Proposed Plan of the PRMP/FEIS proposes to designate 5,100 acres of new Closed OHV Management Areas for resource protection purposes, which would result in the closure of six miles of inventoried routes. Of these routes proposed for closure, less than one mile is located in the Quartzsite area. The Proposed Plan of the PRMP/FEIS proposes to limit motorized travel to 4,600 miles of existing inventoried routes across approximately 1,145,100 acres, or 88 percent of the BLM-administered lands within the planning area. The small mileage of routes currently proposed for closure through the designation of Closed OHV Management Areas is not likely to have a discernible effect on the Town of Quartzsite.

Comment 948: *All travel routes have an economic value and should be evaluated carefully before making a decision to discard them.*

Response: The economic impacts of travel management proposals have been evaluated and the PRMP/FEIS has determined that no discernible economic impacts would occur. Future Travel Management Plans will also evaluate the economic values of individual routes prior to

designation, and the general public is encouraged to participate in these upcoming planning processes.

Subconcern: Cultural Resources

Comment 233: *I'm a Chemehuevi Indian from the Colorado River Indian Tribe and I live in Needles, California... As I see that the San Bernardino County Supervisor, the Nevada Supervisor, the Arizona Supervisor are not in agreement about some of these closed roads because it's public land. They feel they have a right to come into these public lands. And I think these closed roads was done by inputs from not only BLM but the Tribes themselves. What the supervisors or these counties, these county supervisors are not really aware that they have Indian people in their county. And they don't deal with the Indian people. They talk about off roads, we had like you said mention about the intaglios, but we also have other areas which are sacred sites. A lot of these have long done been destroyed, and the people that are looking at this to organize to make it open roads for everybody actually are not native people of the area. They don't seem to understand or don't care less about our areas. Where do they come from, the majority of them? Well, if you stand along the freeway, I don't know about Blythe, but in the Needles area on the weekends you'll see, especially the holidays, you'll see hundreds and hundreds and hundreds of vehicles pulling a trailer with ATVs, dirt bikes, 5th-wheels, and the RVs. Bring all of this area here, where you going to load them at? What are they going to do with them? Jet skis, too. It's tearing our desert up. They've always been tearing our desert up.*

Response: The impacts from OHV use on natural and cultural resources will be systematically evaluated during the future travel management planning process. As a part of this process, BLM will coordinate and consult with all interested Native American tribes. We encourage your participation, and appreciate your interest in working with us to address these concerns.

Subconcern: Sears Point

Comment 445: *I oppose ending vehicle access to Sears Point closing the massive number of acres proposed. Alternative future plans should still allow vehicles to enter by special permit to within a very short walking distance to this extraordinary site. Plus education and enforcement.*

Comment 98: *I support the Off-Highway Vehicle (OHV) Management Area closure of 600 acres at Dripping Springs and 1,400 acres at Sears Point.*

Response: The Proposed Plan of the PRMP/FEIS proposes to designate a 1,400-acre Closed OHV Management Area at Sears Point, as depicted on Map 2-9e-1. The Closed OHV Management Area proposal would not affect existing motorized access to Sears Point via Avenue 76½ E from the Spot Road exit off of I-8, and identified as route GR021 on Map TMA-4: Gila River Valley Travel Management Area. The public would continue to be able to drive to the existing Sears Point parking area, which is within a short walking distance to the area's central mesas.

Public Concern 3: Motorized/OHV Only

Comment 92: *I am opposed to any development in what remains of the southwest deserts. I also*

am opposed to any motorized vehicle use in the deserts.

Response: OHV use has been identified as a legitimate use of the public lands through several applicable statutes, regulations, and policies, including FLPMA, 43 CFR 8340, and the BLM's National Management Strategy Motorized Off-Highway Vehicle Use on Public Lands.

Comment 1304: *Uncontrolled, unregulated public use has irreparably damaged once pristine desert landscapes. I have owned motorcycles, 4x4 vehicles, and I recently purchased an ATV. Those off-highway vehicles (OHVs) should be allowed only on existing designated roads and routes of travel under strictly controlled laws and regulations. However, new roads/trails must not be established or allowed in the planning area.*

Response: FLPMA and a variety of other statutes require the BLM to provide access to mining claims, private property, and other valid existing rights on the public lands. In many instances, this may require the establishment of new roads that must undergo additional site-specific environmental analysis.

Subconcern: Laws and Policies

Comment 1108 (Center for Biological Diversity et al.): *Proposed ORV Management Areas Designations Fail to Prevent Unnecessary Degradation of Public Lands. The Federal Land Policy and Management Act (FLPMA) requires the BLM to "take any action necessary to prevent unnecessary or undue degradation of the lands" and "minimize adverse impacts on the natural, environmental, scientific, cultural, and other resources and values (including fish and wildlife habitat) of the public lands involved." 43 U.S.C. §§ 1732(b), 1732(d)(2)(a). Yet the BLM clearly has prioritized motorized access over resource protection in its selection of the Preferred Alternative.*

Comment 1156 (Center for Biological Diversity et al.): *BLM Directive: ORV "Areas…shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands" (43 CFR §8342.1(c) emphasis added).*

ORV-Related Damage that Would Not be Minimized through Implementation of BLM's Preferred Alternative. The DRMP/DEIS makes the following eye-opening claim: "Most of the planning area is available for at least some level of OHV use" (pages 4-101). As stated previously, 43 CFR §8342.1 requires the BLM to minimize the adverse effects of ORV use. Yet text found throughout the DRMP/DEIS attempts to justify maintenance of the status quo by claiming that the Preferred Alternative alone provides "balance between the needs of public access… and the protection of sensitive resources"(DRMP/DEIS at 4-104). What the BLM describes as "balanced," however, appears heavily skewed toward providing maximum OHV opportunities that in many instances override the agency's mandate to protect sensitive resources (such as air quality, soils, wildlife and desert tortoise, etc.) as described above. Consequently, we hold that the Preferred Alternative is unbalanced in this regard as it clearly favors providing OHV opportunities over both resource protection and non-motorized recreational activities. Such an outcome would stand in sharp contrast to BLM legal mandates.

Moreover, the DRMP/DEIS contains language that demonstrates the striking similarities between OHV Management Area designations under the Preferred Alternative and those of Alternative B, the alternative that "places emphasis on consumer-driven uses and…motorized recreation opportunities" (DRMP/DEIS, page 2-1). There appears to be little difference between the two alternatives with respect to designation of OHV Management Areas and, for all intents and purposes, the environmental impacts of the Preferred Alternative are no different than those under Alternative B. This is evident in text throughout the DRMP/DEIS including page 4-104, which states: "The expected environmental impacts (of Alternative C) are similar to those of Alternative E. Under this alternative, OHV Management Areas would be designated as follows: 2,400 (acres) Open, 171,300 Closed, and 1,144,300 Limited…This alternative is similar to Alternative B" (emphasis added).

Support of Claim that Damage Would Not be Minimized. The DRMP/DEIS contains the following statement: "Closed OHV Management Areas would continue to benefit recreationists seeking non-motorized opportunities" (page 4-103). This statement recognizes that the experiences sought by motorized and non-motorized recreationists are often not compatible. However, no such new "Closed areas" are proposed under the BLM's Preferred Alternative. Presumably, therefore, the unacceptable status quo of OHV use throughout most of the planning area would continue and recreationists seeking non-motorized opportunities would not benefit under the Preferred Alternative.

Response: The YFO removed the Blaisdell, Martinez Lake, and Ehrenberg Sandbowl Expansion Open OHV Management Areas from the Proposed Plan. The removal of these 2,000 acres of Open OHV Management Area proposals would preclude any additional direct and indirect impacts to soils, air quality, wildlife habitat, cultural resources, paleontological resources, and vegetation from authorizing cross-country OHV use on these lands. In addition, the Proposed Plan now proposes to designate 5,100 acres of Closed OHV Management Areas to protect sensitive natural and cultural resources within the planning area. The BLM would minimize impacts to resource values of the public lands from OHVs through the development of Travel Management Plans, which would designate all inventoried roads, primitive roads, trails, and drivable desert washes. The BLM Land Use Planning Handbook defines the designation of individual routes as implementation-level decisions, which are not required to be completed in the RMP process.

Comment 1421 (Quechan Tribe): *The Tribe requests that BLM not open any of its lands to 'limited' off-road use until it has performed an adequate survey of lands adjacent to inventoried routes to ensure that cultural resources are not located nearby such routes that could be impacted by stray off-road vehicles. BLM will violate its trust obligation to the Tribe and applicable laws such as the NHPA if it authorizes off-road vehicle use on lands that have not been adequately inventoried for the presence of cultural resources.*

Response: BLM IM No. AZ-2006-043: Section 106 Compliance for Designating Off-Highway Vehicle Routes and Areas in Land Use Plans, and BLM IM WO-2007-030: Clarification of Cultural Resource Considerations for Off-Highway Vehicle (OHV) Designation and Travel Management outline national and Arizona policies by which the BLM travel management planning will consider cultural resources. These policies set standards on determining the Area of Potential Effect adjacent to existing routes, cultural resource inventorying requirements, and how

future route designations must comply with Section 106 of the NHPA. These policies also reiterate the BLM's commitment to coordination with affected tribes and SHPOs for travel management planning purposes. In addition, this PRMP/FEIS includes a proposal to not allow vehicles to pull-off of routes on public lands with known sensitive cultural resources, such as ACECs and SCRMAs.

Subconcern: Soil (Disturbance, Erosion, Compaction)

Comment 202: *Dust, etc. at Rainbow Acres 55 1/2 & Ruby corner - every New Year's riders, unsupervised riders, etc., breaking crust -- too much dust.*

Response: Section 2.12.2.B of the PRMP/FEIS identifies the impacts to air quality from OHV use as one of the criteria the BLM will consider during future Travel Management Plans. The evaluation and designation of routes in the Quartzsite area would take place during the development of the La Posa Travel Management Plan, and the BLM encourages additional public participation in this planning process.

Subconcern: Wildlife/Animals

Comment 352: *If you need to have cisterns for wildlife, just close the trail to the cistern.*

Response: The AGFD installs and maintains wildlife water catchments within the planning area. Impacts to wildlife from OHV use on the routes leading to the catchments will be considered during the future travel management planning process prior to proposing route designations.

Comment 880: *ATV/OHV are not the menace to wildlife... If an area is impacted by OHV at lambing time - close the trails in the area for a short time and reopen after the danger has passed. Close side roads to cisterns and allow authorized vehicles only.*

Response: The PRMP/FEIS provides several citations of peer-reviewed scientific research on the direct and indirect impacts of OHV use on a variety of desert wildlife. Impacts to wildlife from OHV use during bighorn sheep lambing season and on routes leading to wildlife water catchments will be considered during the future travel management planning process prior to proposing route designations. BLM has the ability to temporarily close trails during sensitive times to wildlife, such as during severe droughts and lambing seasons, and any such limitations would be proposed within future Travel Management Plans.

Subconcern: Wilderness Characteristics

Comment 290: *Manage all areas with wilderness characteristics as closed to OHV use.*

Response: Alternative D of the DRMP/DEIS and the PRMP/FEIS proposed and analyzed the impacts of designating an additional 56,600 acres of Closed OHV Management Areas on lands identified to maintain wilderness characteristics.

Subconcern: User Conflicts

Comment 438: *Current laws for ATV use in LTVA's and 14 day areas, as explained to me by a BLM Law Enforcement Officer, confirms that ALL ATV's can ride anywhere past my RV awning if there is any faint trace of any slight track...LTVA areas are not presently managed as campgrounds by BLM with normal campground safety rules. Future plans for the areas where camping and OHV use mix must be clarified and enforced as either an Open area or Limited use area for safety and dust health reasons...Fifteen miles per hour is far too fast in the congested areas, current signs are rare, and little enforcement is available.*

Response: During the development of future Travel Management Plans, the public will have the opportunity to identify any roads within the LTVAs that should be designated as closed to motorized vehicle use. The BLM is required to consider impacts to noise and air quality when designating routes on the public lands. Routes within the Imperial Dam LTVA will be evaluated and designated as a part of the Greater Yuma Travel Management Area, and routes within the La Posa LTVA will be evaluated and designated as a part of the La Posa Travel Management Area.

Subconcern: Camping

Comment 428: *The 100 ft. rule on off-highway roads would impede camping opportunities.*

Comment 898: *BLM is going to all but eliminate the enjoyment of outdoor camping, should they finalize the 100 foot rule of all "inventoried" vehicular routes. Again, should BLM/YFO use the definition of legal vehicular routes as it is contained in the no-action alternative, camping locations will at least continue to exist until the final route transportation planning process is completed and implemented.*

Response: BLM IM No. AZ-2005-007: State Director Guidance for Arizona Land Use Planning Efforts, authorized Arizona BLM field offices to allow vehicles to pull off 100 feet either side of a designated route's centerline through an RMP-level decision. Except along the Anza Trail and within proposed ACECs, SCRMAs, and Closed OHV Management Areas, this PRMP/FEIS proposes to allow this type of use within Limited OHV Management Areas. In addition, the PRMP/FEIS has included 1,400 miles of additional inventoried routes to Maps TMA-1 to TMA-5, which would reduce the potential impacts to motorized access and overnight camping.

Subconcern: Hunting

Comment 1324 (AGFD): *Restrictions on the use of motorized vehicular travel off inventoried/designated routes throughout the document prohibit the retrieval of downed big game through motorized means. The Department finds it essential to use big game hunts and hunters as part of our strategy to achieve management objectives and wildlife population goals. Thus, it is imperative for hunters to safely, effectively, and in a timely manner retrieve dead and downed game to avoid the unlawful waste of game meat and to facilitate our Challenged Hunter Access/Mobility permit (CHAMP) Program. The department recommends allowing the use of motorized vehicular travel off-road for the retrieval of downed big game.*

Response: Current BLM policy and Federal law prohibit cross-country vehicle travel on the

public lands, including for the retrieval of downed big game. BLM is willing to coordinate in the future to address issues related to AGFD's CHAMP program. Any other changes that would affect national or State BLM policy should be addressed at that level.

Subconcern: Value to Individuals, Families, Seniors, Disabled, etc.

Comment 212: *We cannot walk to these places that the government keeps closing off and we cannot go to these things because there's no access. Our access now, since we can't get around very good, is on ATVs.*

Comment 1438: *Our nation and southwest AZ in particular are experiencing a huge aging population. This aging population presents physical and health limitations to the ability of the local population to use areas of no auto traffic or accessed only by walking or hiking. This would limit said aging population from use of restricted areas which would in fact create a denial of use to our public lands.*

Response: BLM is bound by Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794). After the adoption of this RMP, YFO will begin evaluating and designating individual inventoried routes throughout the planning area. Senior citizens and disabled persons will have vehicular access to the greatest extent possible. However, it is impossible to provide vehicular access throughout the entire 1.3 million acre planning area.

2. Non-System and User-Created Routes

Public Concern 1: Border Issues

Comment 211: *And another one of the big problems I see down here is all the problem with the illegals. Particularly in the Barry Goldwater with all the helter skelter travel with all the illegals and the Border Patrol.*

Response: The cumulative impacts associated with activities along the International Boundary have been included in Chapter 4 of the PRMP/FEIS.

3. Route Analysis

Public Concern 1: Adequacy of Analysis

Comment 284: *Take aerial photos of the areas and put the existing trails on the map before closing the area.*

Comment 897: *The definition of vehicular routes in the no-action alternative should reflect the current and finalized route inventory map in the RMP/EIS. The route inventory map in the draft RMP does reflect all vehicular routes (including washes) that BLM currently allows the public to use. Bottom line...the YFO should fix the map and take the no-action verbiage for legal vehicular routes and make it the language in the preferred alternative. BLM must make these changes regarding vehicular routes in order to stay away from a possible NEPA violation.*

Comment 946: *I am disappointed when I compared my on the ground travels with the Map TMA-2: La Posa Travel management Area, showing inventoried routes. Many existing and much used roads are not shown. Almost all the washes used as travel routes are not shown...Both types of travel routes are necessary to provide variety in the recreation experience. I consider my finding of the MTA route inventory not being very complete reasonably representative of most of the planning area.*

Comment 1036 (YVRGC): *The network of roads, trails, drivable washes, and other legal routes have unfortunately been omitted from the document we have reviewed. Our comments, specifically regarding roads, trails, drivable routes, including washes, should reflect that the Draft reviewed was far from inclusive of the entire travel network known to exist within the planning area.*

Response: The YFO included an additional 1,400 miles of linear features on Maps TMA-1 to TMA-5 of the PRMP/FEIS. These linear features, which may include roads, primitive roads, trails, and drivable washes, have not yet been verified on the ground by the BLM. These linear features were identified by the public as routes during the DRMP/DEIS public review and comment period and were also identified by the BLM from 2005 aerial photos. Recreational routes are described in Section 3.14.1 B. All interested stakeholders will have additional opportunities to identify routes missing from the TMA maps during the development of subsequent Travel Management Plans.

Comment 855: *H-1601... [allows] the option of extra time (5 years) for the delineation of the travel management network provided certain factors are present. Please include information regarding why YFO has not been able to complete the Final Travel Management Network as part of the RMP (size, complexity, controversy, incomplete data, etc.) By deferring the delineation of the travel management network, BLM has the potential of inadvertently predetermining route designations. Planning decisions will be made before the routes have been defined. The only way to assure the public that current open routes will stay open is to complete the Final Travel Management Network as part of the RMP.*

Comment 896: *The Transportation Plan occurring after the plan is finalized is nothing more than a ploy to demonstrate public involvement, only to have BLM do what they want afterwards...All we can hope for is that BLM recognizes land use allocations should not decrease vehicular routes.*

Response: The Proposed Plan defers individual route designations until after the RMP process for the following reasons: (1) developing the complex and controversial proposals for 4,600 miles of route designations would have prolonged the total length of the RMP process, (2) Maps TMA-1 to TMA-5 have been updated to include 1,400 miles of additional linear features that have not yet been verified on the ground by the BLM, and (3) developing Travel Management Plans for each travel management area will provide the BLM, the public, and other interested stakeholders with enhanced opportunities to better focus on establishing a travel management network for individual geographic regions within the planning area.

The evaluation criteria that will be considered by the YFO to develop individual route designation proposals have been listed in Section 2.12.2.B of the PRMP/FEIS. The

predetermination of individual route designation decisions would violate NEPA and would not be feasible due to the fact that there are a total of 4,600 miles of inventoried routes and linear features within the planning area.

Public Concern 2: Route Removal/Decommissioning

Comment 1116 (Center for Biological Diversity et al.): *Restoration of Unauthorized Routes Should Allow Only a Limited Number of Pullout Areas. Text found on page 2-101 of the DRMP/DEIS regarding the restoration of unauthorized motorized routes appears to be inconsistent. On one hand, the text states that "restoration would be limited to that portion of the route…that is in line of site from an open route." It is our understanding that such an approach has proven highly successful in other BLM districts in minimizing the likelihood of ORV trespass on unauthorized routes through the concealment of the former route. On the other hand, text found at the bottom of page 2-101 states that the restoration of closed routes would include leaving unrestored the first 100 feet of a closed route in order "to provide pullout areas or camping opportunities." This action would appear to contradict the intent of the proposed management action to hide or disguise closed routes and could in fact exacerbate ORV trespass onto closed routes as some riders might be reluctant to stop and turn around after the first 100 feet of travel. Consequently, we recommend that the BLM clarify in the Final RMP/EIS this apparent discrepancy and minimize the extent to which portions of closed routes will be left unrestored in order to provide pullout areas or camping opportunities.*

Response: The list of possible route restoration methods included in Section 2.12.2.B of the PRMP/FEIS are meant to provide the BLM with flexibility to utilize the best method available for each individual site. The method of leaving the first 100 feet of a closed route unrestored would complement the travel management policy allowing vehicles to pull off 100 feet from a route's centerline for overnight camping purposes. The existence of 100-foot pull offs would provide the public with convenient undeveloped overnight campsites, which could potentially reduce the amount of new impacts that would occur from allowing the public to pull off and camp in existing undisturbed areas adjacent to routes.

E. RECREATION MANAGEMENT

1. Recreation Management

Public Concern 1: General

Comment 1050 (Yavapai-Apache Nation): *The [Yavapai-Apache] Nation supports recreational activity within the Yuma District to the extent that it does not compromise or adversely effect, riparian habitat, significant cultural resources or the forage of native herbivores.*

Response: Federal laws like NEPA, NHPA, and the ESA ensure that the BLM considers impacts to wildlife, vegetation, cultural resources, and other elements of the environment from recreational activities. We will continue to coordinate and follow Native American coordination and consultation procedures for any site-specific projects, so that the tribe has an opportunity to

provide input on recreation-related projects.

Comment 1192 (Arizona Desert Bighorn Sheep Society: *The section pertaining to recreation was quite complicated and we must trust that it contains no limitation on vehicular access and dispersed semi-primitive undeveloped camping within traditional wildlife hunting areas and mountainous regions. We would suggest that no Special Recreational Management Areas (SRMA) be placed within 5 miles of occupied or suitable bighorn sheep habitat and that the majority of the planning area remains unchanged.*

Comment 1322 (AGFD): *The Department continues to be concerned with the lack of specific national or state guidance and/or policy from the Department of Interior on implementing the new market-based recreation program [including Recreation Opportunity Spectrum (ROS), Recreation Management Areas (SRMA and ERMA), and Recreation Management Zones (RMZ)], as well as areas managed for wilderness characteristics. These concepts and allocations are being used separately or concurrently in the same plan and across planning areas without clear guidance or policy that included decisions will be made or should be implemented on the ground. Thus, we are unable to assess the impacts to fish and wildlife, their habitats, and the Department's ability to manage wildlife and wildlife-dependent recreation. We believe these uncertainties will create situations where managers may interpret decisions differently, creating inconsistencies in management and coordination, ultimately impacting the Department's mission and authorities across the state. The Department recommends careful consideration be taken when applying allocations where no overarching direction is available and that specific language be included within the plan to clarify how the associated decisions should be implemented and/or how they may affect other resources or uses. The department further recommends the impact analysis consider the full range of implementation decisions possible in the absence of guidance and policy.*

Response: Section 2.12 on Travel Management in this PRMP/FEIS outlines proposed policies on vehicular access within the planning area. The PRMP/FEIS proposes to allow vehicles to pull off up to 100 feet from the centerline of routes for dispersed overnight camping purposes, except within existing and proposed ACECs, SCRMAs, and along the Anza Trail.

The BLM Land Use Planning Handbook, H-1601-1, requires that all public lands be allocated as a SRMA or ERMA. Recreation management proposals included in this PRMP/FEIS would not supersede the BLM's statutory responsibilities for wildlife habitat management. The purposes of proposed Destination, Community, and Undeveloped SRMAs are outlined in Section 2.11.1 of the PRMP/FEIS. Section 2.11.3 of the PRMP/FEIS identifies the primary recreation management objectives for all Recreation Management Zones within the proposed SRMAs. The direct and indirect impacts from proposed recreation management allocations to fish and wildlife management have been updated in Chapter 4 of the PRMP/FEIS.

Subconcern: Visual Resources

Comment 1009 (City of Yuma): *The City of Yuma has proposed to designate the Gila Mountains within its General Plan as preserved for Resort Recreation and Open Space. The general purpose of the Resort, Recreation, and Open Space land use designation is to support a very low density of development, agriculture, and areas available for public visitation and recreation with*

or without developed facilities. The Gila Mountains are, in essence, a visual gateway into the Yuma area and therefore must be preserved and viewed as such.

Response: Except for the communications site at Telegraph Pass and the I-8 corridor, all alternatives in the PRMP/FEIS have proposed to designate the highest peaks of the Gila Mountains as a VRM Class II. Management objectives for VRM Class II lands require that future developments should cause a low level of change to the characteristic landscape and that any changes must not attract the attention of the casual observer.

Public Concern 2: Special Recreation Management Areas (SRMA)

Comment 1299 (Huachuca Hiking Club): *On page 2-86, the desired future condition for the Yuma East Undeveloped SRMA is described. The description implies that the primary objective is to enhance the area's attraction as a regional hunting destination. I believe that the desired future condition should be more inclusive and reflect the need to preserve and enhance primitive and semi-primitive, motorized and non-motorized recreational opportunities that draw visitors to this area.*

Response: The primary recreation management objective for the proposed Dispersed Use RMZ has been modified in the PRMP/FEIS to read as, "Throughout the life of the RMP, ensure that the RMZ continues to provide undeveloped and wildlife-based recreation opportunities through motorized and non-motorized means." The Dispersed Use RMZ would be the primary non-wilderness component of the proposed Yuma East Undeveloped SRMA.

Comment 1335 (AGFD): *The Department recommends restricting activities in the Laguna Mountains to wildlife viewing. We would be pleased to partner with YFO to develop a wildlife-viewing program for the Laguna Mountains.*

Response: The Laguna Mountains are located in the proposed Greater Yuma Community SRMA (referenced in Sections 2.11.2 B and 2.11.3 M) and are currently being used for various activities, including wildlife viewing. Numerous miles of existing inventoried mountain biking and OHV trails are located within the Laguna Mountains and are heavily used by local area residents (please refer to Section 2.11.3 M, Laguna Mountains RMZ). BLM encourages AGFD to participate in the evaluation and designation of routes within the Laguna Mountains to ensure the protection of desert bighorn sheep. Routes within the Laguna Mountains would be designated as part of the Greater Yuma Travel Management Plan.

Public Concern 3: Recreation Management Zones

Comment 1336 (AGFD): *We have a general concern with RMZs that stress or focus on recreational use and wildlife viewing. As popularity and use (including wildlife viewing) of an area increases, the resulting number of visitors can adversely impact wildlife. We recommend the YFO add language to allow for adaptive management by stating visitor use and impacts to wildlife will be monitored in partnership with the Department to minimize impacts to wildlife in areas of increasing visitation.*

Response: The purposes of proposed Destination, Community, and Undeveloped SRMAs are outlined in Section 2.11.1 of the PRMP/FEIS. Section 2.11.3 of the PRMP/FEIS identifies the primary recreation management objectives for all Recreation Management Zones within the proposed SRMAs. Recreation management allocations proposed in the Proposed Plan of the PRMP/FEIS are meant to manage existing use in these areas. In addition, a lack of recreation management can also cause more severe impacts to wildlife and other resource values included in the BLM's multiple-use mission. Recreation management proposals included in this PRMP/FEIS would not supersede the BLM's statutory responsibilities for wildlife habitat management and coordination with AGFD. The direct and indirect impacts from proposed recreation management allocations have been updated in Chapter 4 of the PRMP/FEIS.

Subconcern: Bighorn Sheep

Comment 1334 (AGFD): *The Laguna Mountains RMZ proposes a number of recreational activities, including OHV, mountain biking, and horseback riding for the Laguna Mountains. The Laguna Mountains and adjacent unnamed hills along the Colorado River south of Fisher's Landing support a significant population of bighorn sheep. …The potential impacts on this herd of bighorn sheep as a result of the proposed increase in recreational activity (including the proposed OHV area discussed above) was not discussed/analyzed in the EIS.*

Response: Horseback riding, geo-caching, and picnicking have all been removed as Primary Activities of the Laguna Mountains RMZ in the PRMP/FEIS. The Laguna Mountains RMZ was included in the Gila River Undeveloped SRMA under Alternative D of both the DRMP/DEIS and PRMP/FEIS. The impact analysis of the PRMP/FEIS has been updated to better identify the anticipated impacts from SRMA allocations by alternative. YFO will continue coordinating with AGFD according to Section 5.3.C to plan for wildlife-compatible recreational activities in the Laguna Mountains RMZ.

Comment 1364 (AGFD): *Page 2-90, 2.11.3 H Gila Mountains RMZ, RMP Statement-None: The Department notes that BLM lands in the Gila Mountains South of Interstate 8 support bighorn sheep. We recommend focusing recreational activities in this RMZ north of I-8 or possibly dividing the RMZ into sections north of I-8 and south of I-8, with recreational activities being concentrated north of I-8. Recreational activities south of I-8 should be limited in, or near, the mountains to protect the sheep.*

Response: All public lands within the Gila Mountains have continued to be included in the proposed Gila Mountains RMZ in the PRMP/FEIS. This is due to the fact that hiking and OHV riding commonly occur throughout the foothills and interior of the Gila Mountains both north and south of I-8. The Gila Mountains RMZ was included in the Gila River Undeveloped SRMA under Alternative D of both the DRMP/DEIS and PRMP/FEIS. The impact analysis of the PRMP/FEIS has been updated to better identify the anticipated impacts from SRMA allocations by alternative. The BLM will continue coordinating with AGFD according to Section 5.3.C to plan for wildlife-compatible recreational activities in the Gila Mountains RMZ.

Comment 1365 (AGFD): *Page 2-91, 2.11.13 L Intensive Day-Use RMZ, RMP Statement-None: The Department recommends removing the Plomosa Mountains from this RMZ because of their importance to bighorn sheep.*

Response: The Proposed Plan of the PRMP/FEIS has been modified to allocate most of the Plomosa Mountains north of Plomosa Road as an ERMA, where recreation management would solely focus on protecting resource values and public health and safety. The Proposed Plan of the PRMP/FEIS continues to propose including most of the Plomosa Mountains south of Plomosa Road in the Intensive Day-Use RMZ due to the high amounts of visitor use in this area. Section 2.11.3.L states that the primary recreation management objective of the Intensive Day Use RMZ is to "reduce the recreational impacts to the RMZ's natural and cultural resources through effective interpretation and environmental education."

Comment 1366 (AGFD): *Page 2-91, 2.11.13 M Laguna Mountains RMZ, RMP Statement-None: the Department notes that the Laguna Mountains also support bighorn sheep. We recommend limiting recreational activities in this area to protect the sheep population.*

Response: The Laguna Mountains currently provides a multitude of recreational opportunities in the greater Yuma area. The Recreation Management Objectives of Section 2.11.13 M (Laguna Mountains RMZ) states: “Throughout the life of this RMP, reduce user group conflicts and impacts to wildlife and cultural resources while ensuring that a wide variety of trail-based activities remain available.” With this objective in mind, BLM would ensure impacts to wildlife, including desert bighorn sheep, are minimized so that these recreational opportunities exist in concert with wildlife populations. YFO would use adaptive management, including emergency restrictions, if resource management conflicts are of serious magnitude.

Comment 1371 (AGFD): *Page 2-96, Table 2-22 Management Actions, 2nd row, RMP Statement-Identify an interconnected system…: The Department recommends limiting recreational activities in the Laguna Mountains to protect the bighorn sheep population.*

Comment 1372 (AGFD): *Page 2-96, Table 2-22 Management Actions, 4th row, RMP Statement-Establish designated motorized trail connectivity…: The Department notes this area has a significant bighorn sheep population and we request that motorized access be extremely limited in this area.*

Response: BLM recognizes the importance of proper coordination with AGFD regarding bighorn sheep populations in the Laguna Mountains. The area currently has an interconnected trail system for mountain biking, hiking, and OHV use. The travel management planning process will be instrumental in designating roads for appropriate recreational use.

2. Recreation Opportunity Spectrum

Public Concern 1: Clarity of Information

Comment 1117 (Center for Biological Diversity et al.): *The DRMP/DEIS Includes an Inappropriate Application of the Recreational Opportunity Spectrum. The DRMP/DEIS fails to disclose existing Recreation Opportunity Spectrum (ROS) designations within the planning area as a result of previous planning efforts. Specifically, the DRMP/DEIS fails to disclose earlier ROS designations under the 1986 & 1987 Yuma District Resource Management Plan (as amended), the 1988 Lower Gila South Resource Management Plan (as amended), and the 1983*

Lower Gila North Management Plan (as amended). ROS designations from these plans that coincide with lands within the current RMP planning area must be shown on maps and summarized for each alternative in the Final Yuma RMP/EIS.

The DRMP/DEIS fails to describe the origin or rationale for changes made to the ROS that eliminate the management class known as Semi-Primitive Non-Motorized. Since its inception, the ROS has included six classes as defined in 1979 by Roger N. Clark and George H. Stankey[2] that have been used by both the U.S. Forest Service and BLM for decades for classifying existing and desired recreation environments along a continuum ranging from primitive, low-use, and inconspicuous administration to urban, high-use, and a highly visible administrative presence. Included among the spectrum is the class Semi-Primitive Non-Motorized. Yet the ROS as described in Section 3.13.1 of the DRMP/DEIS (and shown on Table 2-11) is devoid of this class. In its place, however, the BLM has substituted a classification of Semi-Primitive and provided a definition for this new classification that does not preclude motorized uses (DRMP/DEIS, page 3-89). No explanation is given in the DRMP/DEIS for this change in the ROS classification system. A comparison of the ROS classes listed in the DRMP/DEIS versus the traditional ROS classes still in use today is provided in Table 2 [see letter].

As shown in Table 2, the six ROS classes have been altered substantially by the BLM in the DRMP/DEIS and no longer match the six classes of the long-accepted ROS. The net effect of this alteration gives the appearance that motorized recreation will be allowed to dominate all recreational settings—other than within designated Wilderness—throughout the 1.3 million-acre planning area. Text provided in the DRMP/DEIS indicates that motorized recreation under the Semi-Primitive ROS class may be limited by "topography, and absence of existing roads, or resource protection measures." It is assumed, therefore, that few limitations to motorized uses in this classification would be sought otherwise.

Remarkably, the description for the ROS provided in the DRMP/DEIS Glossary of Terms matches that of the traditional ROS and includes the Semi-Primitive Non-Motorized classification. The glossary's description does not include the truncated 'Semi-Primitive' classification nor does it include the BLM's presumably new classification system that includes 'Rural Natural,' 'Rural Developed," and 'Suburban' (as shown in Table 2) Text located within the glossary's footer includes a date of July 2006, inferring that the Yuma BLM adjusted its ROS classification system after that date.

To remain consistent with the agency's long-standing policy for use of the ROS, the BLM must reinstate the Semi-Primitive Non-Motorized class in the current Yuma RMP and determine corresponding landscape units that merit this classification. To not include the Semi-Primitive Non-Motorized class would be inconsistent with accepted academic and agency practice. Should the BLM choose not to include the Semi-Primitive Non-Motorized classification in the Final Yuma RMP, however, text in the RMP must provide a rationale for any deviation from accepted protocol while providing appropriate disclosure of the fact that BLM's application of the ROS has been altered for the purposes of this RMP.

Response: The prescribed recreation settings/ROS classes and definitions proposed in the DRMP/DEIS were applied appropriately in regards to BLM policy. The 1986 and 1987 Yuma District Resource Management Plan, as amended, the 1988 Lower Gila South Resource

Management Plan, as amended, and the 1983 Lower Gila North Management Plan, as amended, did not establish any ROS classes, which is why none were disclosed under Alternative A (the No Action Alternative) on Table 2-11. The PRMP/FEIS has been updated to include this information.

The BLM Land Use Planning Handbook instructs the BLM to "prescribe recreation setting character conditions required to produce recreation opportunities and facilitate the attainment of both recreation experiences and beneficial outcomes…(the recreation opportunity spectrum is one of the existing tools for both describing existing setting character and prescribing desired setting character)" (BLM Manual H-1601-1, Appendix C, pages 15-16). The handbook did not establish a standard set of ROS classes and definitions to be used consistently throughout the BLM.

BLM Manual 8320 – Planning for Recreation Resources (04/16/1981) provides additional policy guidance on the use of the ROS in BLM land use planning efforts. Appendix 1, page 1 of the manual provides a description of the various prescribed recreation settings/ROS classes, which coincide with the ROS classes recommended in the comment. However, the manual states that "these descriptors provide a general overview of the opportunities included in each class. These overview statements do not describe each class in detail, but rather provide a point of departure from which the planner or manager can develop more precise prescriptions for each class based on specific situations encountered in field operations." In fact, a cursory review of other approved BLM land use plans shows that BLM field offices commonly tailor prescribed recreation settings/ROS classes to suite their specific needs, as provided for under BLM policy. A few of the prescribed recreation settings/ROS classes found in other BLM land use plans include Residential, Industrial, Agricultural, Front Country, Middle Country, and Back Country. These prescribed recreation settings/ROS classes represent a far wider departure from the 1979 Clark-Stankey ROS system than the prescribed recreation settings/ROS classes proposed in the YFO PRMP/FEIS.

Motorized recreation on the public lands is primarily managed through the decisions proposed in Section 2.12, Travel Management, which includes the designation of OHV Management Areas and the evaluation criteria to be used for future individual route designations. Prescribed recreation settings are identified as one of several types of evaluation criteria to be considered during the designation of routes. As the commenter states, motorized recreation within Semi-primitive prescribed recreation settings/ROS classes may be limited by "resource protection measures," which could include various types of future route designations.

The inclusion of the "Semi-primitive Non-Motorized" ROS class in the Glossary of the DRMP/DEIS was an error, and the definitions of all prescribed recreation settings to be used within the YFO have been included and/or corrected in the PRMP/FEIS.

The BLM does not maintain a long-standing policy and/or protocol for the use of ROS. The YFO has determined that the prescribed recreation settings/ROS classes and their corresponding definitions included in the PRMP/FEIS would provide sufficient recreation planning guidance over the life of this plan. Deviation from the 1979 ROS classes and definitions is allowable under existing BLM policy.

3. Motorized Recreation Management

Public Concern 1: Wildlife and Animals

Comment 1195 (Arizona Desert Bighorn Sheep Society): *Based on our limited understanding of the various settings and classifications we would favor the classifications of rural-natural and semi-primitive, motorized as these settings appear to be the best fit towards leaving things as they presently are. We see no compelling reason to advance more primitive or semi-primitive, non-motorized recreation and we view these setting as potential threats to wildlife conservation activities and responsive wildlife dependent recreations.*

Response: Recreation management proposals included in this PRMP/FEIS would not supersede the BLM's statutory responsibilities for wildlife habitat management. The direct and indirect impacts from proposed recreation management allocations have been updated in Chapter 4 of the PRMP/FEIS.

Comment 353: *All ATV riders love wildlife and do not destroy the land. As for the low count of sheep - they moved on due to mountain lions in certain areas. Please choose Alternative A - no action.*

Response: There are many factors aside from predators that may influence changes in bighorn sheep populations, but it is unclear which factor has the biggest influence. For example, predators, lack of rainfall, and human disturbances could all be influencing bighorn sheep populations. Even if human disturbance is not the main cause of the population decline, easing that extra stress would benefit the population. Predator control and other management tools may also be needed to help this valuable resource. BLM's goal is to manage habitat to sustain healthy populations of bighorn sheep and provide recreation opportunities.

Public Concern 2: Airstrips and Airplanes

Comment 223: *There needs to be someplace people can fly in here. This town is growing and it needs an airport, BLM has the land.*

Response: Any applications for an airport must meet FAA regulations and would be considered on a case-by-case basis.

4. Developed Recreation Facilities

Public Concern 1: General

Comment 420: *BLM should develop something for the public to use.*

Response: Within the 1.3 million acre planning area, the YFO operates and maintains 24 designated recreation sites identified in Table 3-19, which include boat ramps, day-use areas, 14-day camping areas, and LTVAs.

Public Concern 2: Campgrounds and Picnic Areas

Comment 21 (Tamarack Lagoon Corp.): *Further clarify maximum length of stay at recreation concessions. Paragraph 3.13.3 of the Draft RMP states, "The maximum length of stay within concessions is limited to 150 days per year". The question is whether this applies to RV trailers or individual occupants, and if the latter, what procedures are in place to monitor the length of stay of individuals?*

Response: The length of stay policy within concessions applies to individuals. Monitoring and compliance of this policy is the responsibility of the concession lease holder. Concessions are managed according to 43 CFR 2920.

Comment 24 (Tamarack Lagoon Corp.): *Further define plans for Sandy Cove Campground ("Hippy Hole"). Expanded use of this area has resulted in a significant public health risk due to lack of public restrooms or portable toilets. Please include specific plans to deal with this.*

Response: The BLM finalized the Oxbow Recreation and Wildlife Area Management Plan and Environmental Assessment in 2005. This plan calls for recreational improvements to address existing public health and safety, wildlife habitat, water quality, and wildland fire management issues at Sandy Cove. However, land status and jurisdictional issues must first be resolved prior to implementing any improvements, which would then be completed as funding and staff levels allow.

5. Non-Motorized Recreation Management

Public Concern 1: General

Comment 206: *Foot, bicycle, and horse traffic causes damage if also used or confined to too small use area.*

Response: Chapter 4 of the PRMP/FEIS acknowledges that pedestrian, bicycle, and equestrian use of the public lands can cause direct and indirect impacts to a variety of resource values. Impacts from these route uses will also be systematically evaluated during the travel management planning process.

Public Concern 2: Dispersed Camping

Comment 256 (Anza Trail Coalition of Arizona): *I would recommend that campsites be set up, [the Juan Bautista de Anza National Historic Trail] is a long distance trail. It is something over 400 miles in Arizona, a total distance of 1,200 miles in California and Arizona.*

Response: The need and suitability for campsite designations and other supportive facilities will be considered during the future on-the-ground planning and development of a recreational Anza Trail. Most public lands within the planning area are already available for dispersed overnight camping for up to 14 consecutive days within any 28-day period.

Public Concern 3: Equestrian/Pack Animals

Comment 331: *I would like to register my request for more horseback riding trails and accommodations. The tremendous residential growth we are experiencing in and around Yuma -- especially out in the country has significantly shrunk the available land for trail riding. However, there has not been a decrease in the number of horse owners in the area, in fact those numbers, I'm sure, have increased as well.*

Response: While the primary focus of the BLM's future Travel Management Plans is for motorized OHV trails, the planning process will also include the designation of routes for non-motorized uses, such as horseback riding, hiking, and mountain biking. The BLM has the ability to designate trails for specific uses, such as for hiking only or for equestrian use only. During the travel management planning process, all public land users will have the opportunity to recommend how individual trails should be designated. Horseback riders should also be prepared to identify maintenance needs for routes that provide access to existing or potential equestrian trailheads so that vehicles with horse trailers can safely reach their destinations.

Comment 1369 (AGFD): *Page 2-95, Table 2-20 Management Actions, last row, RMP Statement-In the Trigo Mountains Wilderness, limit equestrian use…: We do not believe it is necessary to limit equestrian use to inventoried routes in the whole wilderness area at this time.*

Response: This Management Action was modified in the PRMP/FEIS to limit only equestrian groups authorized by SRPs to pre-selected trails in all wilderness areas. The Management Action is stated as follows: "Limit equestrian use authorized by SRPs to pre-selected trails on a case-by-case basis."

Comment 905: *BLM must not limit access by horse anywhere, including Wilderness. One of the best ways to enjoy a wilderness experience would be by horseback...*

Response: Proposed equestrian use limitations are mitigation measures to protect sensitive natural and cultural resources, since horse tracks can cause permanent and irreparable damage to identified significant resource values. This type of mitigation is particularly effective in areas with a high concentration of intaglio features and other cultural sites that are listed on the NRHP, such as the Blythe Intaglios and Indian Springs. In addition, many of these mitigation measures would only apply to horseback riders participating in activities authorized by the BLM's SRP program, and not to individual horseback riders casually recreating on the public lands.

Comment 1373 (AGFD): *Page 2-96, Table 2-22 Management Actions, last row, RMP Statement-Within the Southern Desert Communities…: We do not believe that it is necessary to limit equestrian use to inventoried or designated routes in the whole area at this time.*

Comment 1374: *Page 2-97, Table 2-23 Management Actions, last row, RMP Statement-Limit equestrian use…: We do not believe that it is necessary to limit equestrian use to inventoried or designated routes in the whole ACEC at this time.*

Response: The PRMP/FEIS continues to propose limiting equestrian use within the Big Marias, Dripping Springs, and Sears Point ACECs to existing inventoried routes until designation in

order to protect sensitive cultural resources within these areas. The PRMP/FEIS no longer proposes to limit equestrian use to existing inventoried trails within the Southern Desert Communities, Gila Mountains, Laguna Mountains, Trigo Mountains, and Ehrenberg-Cibola RMZs. The PRMP/FEIS also proposes to limit equestrian use authorized by SRPs to pre-selected trails on a case-by-case basis.

Public Concern 4: Other Recreational Uses

Subconcern: Rockhounding

Comment 1440: *We also do a little rock-hounding but so many areas close in are being closed off.*

Response: The PRMP/FEIS includes no proposals that would impose additional restrictions or limitations on rockhounding throughout the 1.3 million acres of public land within the planning area. Other applicable laws and regulations would still apply to rockhounding activities, such as acceptable uses of motor-vehicles and limits to amount of material removed.

Subconcern: Hot Air Ballooning

Comment 203: *I own a hot air balloon, which I have flown in the area in the past. Current regulations prohibit hot air balloons from landing or taking off in the LTVAs, unless authorized in advance. In recent years we have been actively discouraged from flying anywhere in the area and that a permit would not be granted. I have reviewed the DRMP and did not find any comment regarding balloons or other aircraft. I am requesting that the Yuma office consider permitting this low impact activity, similar to BLM policy in other desert areas.*

Comment 204: *Permitting balloons in un-congested areas (perhaps 1,000 feet from any rv/camp site) would ensure public safety and provide for this popular recreational activity.*

Response: Specific activities within the LTVAs, such as hot air ballooning, were addressed in the Long-Term Visitor Area Supplemental Rules and hot air ballooning was specifically prohibited (unless authorized in advance by the BLM authorized officer). Hot air ballooning within designated recreation sites poses safety concerns and would not normally be authorized. Hot air ballooning on public lands outside of designated recreation sites might be available, but travel off existing inventoried routes to recover equipment would not be allowed and the individuals participating could be held liable for damage to vegetation or other resources. Hot air ballooning for commercial activities in all cases would require an authorized permit and payment of appropriate fees.

Public Concern 5: User Fees

Comment 473: *You can preserve the wide open solitude of the desert by implementing a fee for recreation program in the area. By charging people to use the land while you subsidize commercial interests for using up the land, you will cause recreationists to look for hiking opportunities elsewhere. This will be an economic boon to the area because by reducing the*

number of people who come, you will attract solitude seekers who are willing to pay top dollar for walking around in the desert.

Wait maybe I am wrong here, do not start a fee for recreation program. Hikers seeking solitude are usually not a big money type group and you may be better off getting the big money organizations you currently subsidize to pay their fair share for consuming the land rather than just using it.

Response: The BLM is only authorized by the Federal Lands Recreation Enhancement Act and 43 CFR 2930 to collect fees on the public lands at developed recreation sites and for commercial operations, organized group events, competitive events, and use of specially designated areas.

6. Recreation Permitting

Comment 205: *Current access should carry user responsibility to provide the best experience for most people. Only licensed and insured vehicles operated by licensed operators. License would require mufflers and safety gear. Modified off-road only rigs (ATV, bikes, truck) induce "wild" behavior.*

Response: OHV vehicle licensing and insurance requirements are regulated and enforced by State governments. Federal vehicle operation standards for use on the public lands are identified in 43 CFR 8343.

7. User Education and Research

Public Concern 1: General Education

Comment 645: *Education of the general public requires easily accessible literature written in a language easily understood. The literature must be available at all entrances to the LTVA areas, at all ATV related businesses, at libraries, Chambers of Commerce, RV parks, living areas (such as Rainbow Acres), and all other public facilities. The literature must contain detailed maps, simplified rules and regulations. Also included must be easily understood reasons for safety, health issues (dust), protection of the land, vegetation, and animals.*

Comment 439: *Education programs are absent for many BLM land users outside the LTVA's. LTVA rules are too long, and are not emphasized by the volunteers. They are not read by the casual visitor. No rules are distributed to RV parks and all local public organizations around the heavy use area of Quartzsite. A growing number of users in the North La Posa come from outside and create dust, speed and new roads where people pay to live.*

Comment 260 (Anza Trail Coalition of Arizona): *I don't know if you visited the Hohokam Cultural Center of the Gila River Indian Tribe. They have, in fact the first exhibit was ancestral trails. If you haven't seen that, I think you would find that very interesting and try to develop something within the Yuma district of that type.*

Response: The development of interpretive and educational materials is not considered an RMP-level decision. However, the YFO will continue striving to provide the public with the

best quality informational, interpretive, educational signs, maps, and brochures possible as funding allows. The BLM supports the use of easily understood plain language in all public documents.

Public Concern 2: Cultural Resources

Comment 743: *Education and roping off the petroglyphs and making pathways to direct pedestrians may help protect them.*

Response: Installing fencing, defined pathways, and interpretive materials is often a successful way to reduce impacts to important petroglyph sites from public visitation. The Proposed Plan of the PRMP/FEIS identifies these types of protection measures at important cultural sites within proposed ACECs and other public use cultural resource sites throughout the planning area.

8. Volunteers, Partners

Comment 622: *I belong to the Quartzsite Gem and Mineral Club and the Quartzsite Metal Detector Club and I am sure there would be members who would be willing to help [marking trails]. Would this type of help be of interest to BLM?*

Comment 351: *We need to have more interaction with BLM and be watchdogs for them -- we have an abundance of volunteers that would be glad to work to keep our lands in accordance with BLM rules.*

Comment 374: *As a group of a very large group of senior citizens in the Quartzsite area who are concerned about our use of BLM land, we could easily be used to promote the correct use of existing trails by helping mark these trails and help as we do now collect litter.*

Response: The YFO is always interested in providing additional volunteer opportunities. The signing and maintenance of the designated travel management network will be no small task. You or your club should contact the YFO early in the travel management planning process for the areas you're interested in and identify your willingness to volunteer. Travel Management Plans will also address identified route maintenance needs, providing you or your club with an excellent opportunity to actively assist in managing the future Travel Management Network.

F. LANDS AND REALTY MANAGEMENT

1. Public Land Ownership/Boundaries

Public Concern 1: Private Property/Inholdings

Comment 39: *Several private owners in the Walters Camp area of the Colorado River ... object to any effort to include their private property within the plan. Provide me with a map showing the adjusted boundaries which do not include the privately owned properties except those folks who may have specifically agreed to the inclusion of their respective properties in the plan .. If you prefer, a simple letter stating private property is not included within the boundaries of the*

plan would be sufficient.

Response: A letter was sent to the commenter on February 15, 2007 stating "…In accordance with FLPMA and the BLM Land Use Planning Handbook (H-1601-1), a planning area boundary includes all lands regardless of jurisdiction: however, BLM will only make decisions regarding lands that fall under the BLM jurisdiction." The private property within the boundaries of the SCRMA would not be impacted by the plan, as private land is outside the jurisdiction of the BLM.

Public Concern 2: Wilderness Areas

Comment 899: *In regard to the boundary of the Eagletail Mountain Wilderness, I believe BLM has wrongfully placed the boundary to encompass 20,000 plus acres which should not be wilderness according to the Proposed Action described in the Lower Gila South Final EIA of 1987.*

Comment 1193 (Arizona Desert Bighorn Sheep Society): *We could not help but notice on page 2-6 that your listed inventory of designated wilderness acreage differs significantly from the enumerated acreages contained within Title 1 of the 1990 Arizona Desert Wilderness Act. In one case, the Eagletail Mountains Wilderness is nearly 10,000 acres, or more than 10% larger than what Congress approved in the enabling legislation. We trust that your office will identify these anomalies and correct these errors.*

Response: The Eagletails Wilderness acreage reflects the intent of the congressional Wilderness designation, including Cemetary Ridge, from the February 1990 map included in the Arizona Wilderness Act of 1990. The acreage for this Wilderness Area was merely estimated to be 89,900 acres. The completed survey of the Wilderness Area was filed in 2001 yielding 98,675 acres. For this RMP, YFO rounded this acreage to 98,600 acres, to compromise between different computing methods which yielded slightly different results (+/- 100 acres). The wilderness boundary has not been enlarged. It is clear that the boundary the BLM has used since the passage of the Arizona Desert Wilderness Act of 1990 is that depicted on the February 1990 map.

2. ROW Corridors

Public Concern 1: General

Comment 266: *No new utility corridors [ROW corridors] should be approved.*

Response: FLPMA mandates, as stated in Section 2.18.1.C.1, that in order to minimize adverse environmental impacts and the proliferation of separate ROWs, the utilization of ROW Corridors would be required to the extent practical, and each ROW or permit shall reserve to BLM the right to grant additional ROWs or permits for compatible uses on or adjacent to existing ROWs. New corridors are being proposed to align established corridors with adjacent BLM field office corridors in California and Arizona.

Public Concern 2: Adequacy of Analysis

Comment 1120 (Center for Biological Diversity et al.): *The DRMP/DEIS Fails to Demonstrate a Need for the Proposed Number of Utility Corridors [ROW corridor]. Not only does the EIS fail to provide justification for seven new utility corridors [ROW corridor], it fails to justify retention of two of the three existing utility corridors [ROW corridor] (Palo Verde-Devers and Interstate 10). The attempted justification and analysis for the utility corridors [ROW corridor] is sketchy and outdated. The EIS states that designated utility corridors [ROW corridor] will be consistent with the Western Utility Group (WUG) Corridor Study (pp. 2-132, 3-102), but this is not demonstrated in the EIS, nor is it clear which "Western Utility Group Corridor Study" is being invoked. A search of the "References Cited" section of the EIS fails to turn up a reference to the document. Western Regional Corridor Study that is in the process of being revised? According to the BLM National Energy Initiatives web page (http://www.blm.gov/energy/task25.htm), which was accessed on March 11, 2007, "The Western Utility Group's (WUG) Western Regional Corridor Study is currently being updated to identify proposed corridors by priority that is tied to future energy related transmission needs." Thus, it would appear that the EIS is either using an out-of-date study from the early 1990s, or an as-yet incomplete document. In either case, this rationale for designating the utility corridors [ROW corridor] is faulty.*

The EIS similarly fails to consider other planning documents in proposing designation of utility corridors [ROW corridor]. The need for more utility corridors [ROW corridor] is nowhere related to any other sources projecting future proposals for utility lines such as electrical transmission lines, natural gas pipelines, and petroleum or petroleum product pipelines. On the state level, the EIS ignores the Arizona Corporation Commission's recently-issued Fourth Biennial Transmission Assessment, 2006-2015 (Arizona Corporation Commission Staff and KEMA, Inc., 2007). On the federal level, the EIS fails to mention the West-Wide Energy Corridor Programmatic EIS (West-Wide PEIS; http://corridoreis.anl.gov/). BLM is one of four lead agencies in this process. Are the utility corridors [ROW corridor] proposed by BLM in Alternative E of the Resource Management Plan (RMP) to be considered input to this process? Nowhere is it stated that the RMP may have to be amended to accommodate the outcome of the West-Wide PEIS and designating additional utility corridors [ROW corridors] at this time may be premature given the West-Wide PEIS process.

Response: Information from the Western Utility Group 1992 Western Regional Corridor Study, the Draft West-wide Energy Corridor Programmatic EIS, and public input was considered for the development of the range of alternatives in this PRMP/FEIS. All the corridors identified in the Proposed Plan, except for US Highway 95 California and portions of I-10, were designated or proposed as corridors in the Western Utility Group 1992 Western Regional Corridor Study. The West-wide Energy Corridor Programmatic EIS is not complete as of the publication of this document. The ROW Corridors identified in the YFO's Proposed Plan meet the needs identified in the Draft West-wide Energy Corridor Programmatic EIS and attempts to meet the local needs for ROW developments in the planning area. The YFO PRMP/FEIS and the Draft West-wide Energy Corridor Programmatic EIS are considered two separate planning documents, and there are separate review processes for each. The 1992 Study has been added to the "References Cited" section of the PRMP/FEIS.

The continued need for the four existing ROW Corridors is demonstrated by the numerous ROWs within those four corridors. It is anticipated that future applications for ROWs would be proposed within those corridors. After further analysis and review of proposed corridors, two ROW Corridors [South Muggins (ROW 3) and Gila Mountains East (ROW 6)] have been removed from the PRMP/FEIS Proposed Plan. In addition, the Parker Blaisdell ROW Corridor was modified to remove the part south of Blaisdell. The four additional ROW Corridor proposals that are included in the Proposed Plan are currently encumbered by numerous ROWs and would be utilized to minimize future adverse environmental impacts. Confining new authorizations within established corridors where possible would inhibit the proliferation of separate ROW routes outside corridors and would be consistent with Section 503 of FLPMA. In addition, these ROW Corridors would align corridors with adjacent BLM field offices in California and Arizona to facilitate transmission of electricity, communications, and oil-based products between states. The Palo-Verde Mountains Reroute ROW Corridor would realign a portion of an existing corridor (identified as Corridor J in the El Centro Field Office), which currently cuts through the Palo Verde Mountains Wilderness in California. Its location in Wilderness and the narrow width of the existing corridor prohibits future use.

The Fourth Biennial Transmission Assessment (Assessment) became available after the YFO DRMP/DEIS was published in December 2006. The YFO has since acquired and reviewed a copy of the Assessment. The Assessment is focused on electrical transmission facilities and does not evaluate other facilities that may be included in ROW Corridors. The Assessment's purpose is to determine the adequacy of the existing and planned transmission facilities in Arizona to meet present and future energy needs in Arizona. The proposed corridors in the YFO PRMP/FEIS would facilitate this goal and in addition would facilitate transmission of energy between Arizona and other states within the region. The ROW Corridors would also provide for routing other facilities such as oil and gas pipelines and fiber optic lines to meet public demand.

Comment 1121 (Center for Biological Diversity et al.): *We also question whether the utility corridors [ROW corridor] need to be one mile (5280 feet) wide. The West-Wide PEIS is analyzing corridors that are 3500 feet wide http://corridoreis.anl.gov/documents/docs/Energy_Corridor_PPT_for_Senate_Feb06.pdf,slide 10). A one mile swath of land covers a very large area and increases the likelihood of significant negative impacts to wildlife, wildlife habitat, vegetation, and cultural and archaeological sites.*

Comment 1126 (Center for Biological Diversity et al.): *The Environmental Impacts of the Remaining Eight Proposed Designated Utility Corridors [ROW Corridors] Are Insufficiently Analyzed. Assessing the potential environmental impacts of the remaining proposed seven and one existing utility corridors [ROW corridors] is not possible given the paucity of information provided in the DEIS. In this respect, the DEIS fails to meet NEPA standards. It is clear that there is an excess of proposed corridors in the southern part of the planning area. Since the utility corridors [ROW corridors] aren't labeled on Maps 2-12a through 2-12e, it is also difficult to correlate them with the names used in Table 2-30 (p. 2-125) of the DEIS. We question why so many utility corridors [ROW corridors] are needed lacking any documented specific demand in the DEIS and given that each utility corridor [ROW corridors] is one mile wide. The proposed Devers-Palo Verde #2 transmission line would have a right-of-way of 130 feet (California Public Utilities Commission and U.S. Bureau of Land Management 2006:ES-8); in one mile (5280 feet), forty such transmission lines could be built, although we recognize that the full corridor may not*

be available because of terrain, biological, cultural, or other resources. Still, a one mile corridor seems to allow for multiple power and pipe lines both above and below ground without encroachment on other rights-of-way. Thus we see a need for no more than one utility corridor [ROW corridor] going east to west in the southern part of the planning area, and we continue to question whether a one mile width is necessary. It is impossible to express a preference for a specific utility corridor [ROW corridor] in this area lacking more detailed information, which is desperately needed for an analysis under NEPA.

We also doubt that US 95 needs to be designated a utility corridor [ROW corridor] throughout the Yuma Field Office boundaries. We recognize that there is an existing 161 kilovolt Parker to Gila transmission line along US 95. We are also unaware of any proposal to build large power lines (230 kilovolts and up) along this route. If it is necessary to replace the existing power line, that could be handled through an EIS at the appropriate time, rather than designating a utility corridor [ROW corridor along US 95.

Ringing the Muggins Mountains Wilderness Area with a new utility corridor [ROW corridor] on the southwest in addition to the existing San Diego Gas & Electric power line and corridor along the northern boundary of the Muggins Mountains Wilderness is unjustified by any discussion in the document and we urge BLM not to designate it as a utility corridor [ROW corridor].

Lacking sufficient information for its utility corridor [ROW corridor] proposals, we recommend that BLM do a more detailed analysis that would provide justification for designating or not designating utility corridors [ROW corridors]. This should include more information on demand and potential impacts on the environment, and opportunities for public proposal and comment. We are also concerned that if BLM designates the proposed utility corridors [ROW corridors] in Alternative E without the sufficient analysis we have requested, BLM may employ only an environmental assessment rather than an environmental impact statement to assess impacts from specific proposed projects. This would result in insufficient analysis of the impacts of the project at both the planning (RMP) and project levels.

Response: Previous RMPs encompassing the current planning area analyzed and approved four one-mile wide ROW Corridors. Designation of a one mile wide corridor does not mean the entire one mile width would be disturbed or even utilized. In accordance with Section 503 of FLPMA, the intent of the designation of ROW Corridors is to minimize adverse environmental impacts and the proliferation of separate ROWs. The one mile width allows for the alignment of the linear ROW to be proposed where it would avoid special designation areas and environmentally sensitive areas to the maximum extent possible. Appropriate mitigation would be required when avoidance is not possible. The one mile width determination is consistent with BLM policy at this time. The Western Utility Group recommended designating the ROW Corridors widths between two miles and five miles wide. The West-wide Energy Corridor Programmatic EIS recommends maintaining existing corridors at the original width.

New applications for ROWs within any designated ROW Corridor would be analyzed through the appropriate NEPA document at the time of the application. If significant impacts to natural and/or cultural resources were found during the analysis of the proposed ROW within a ROW

Corridor, the proper mitigation measures, including possible rerouting a portion of the ROW, would be required to avoid any sensitive areas. Section 2.18.1.C.1 of the PRMP/FEIS was reworded to state under Management Actions Common to All Alternatives that rights of way would avoid special designation areas and environmentally sensitive areas such as SCRMAs and WHAs to the maximum extent possible. Appropriate mitigation would be required when avoidance is not possible.

Comment 1422 (Quechan Tribe): *The Tribe requests that BLM clarify how the designation of new energy corridors in the Draft RMP relates to the West-Wide Energy Corridor Programmatic Environmental Impact Statement currently being developed by BLM and the U.S. Forest Service pursuant to Section 368 of the Energy Policy Act of 2005.*

Comment 84: *Protect our public lands in Western Arizona by limiting utility corridors [ROW corridors] to the existing corridors. Consideration of additional power lines should first examine the impacts on wildlife and should not be allowed in sensitive areas. Proposals like the Devers to Palo Verde 2 line should be rejected.*

Comment 1125 (Center for Biological Diversity et al.): *The Interstate 10 Utility Corridor [ROW Corridor] Faces Serious Constraints on Its Use. The Lower Gila South Resource Management Plan (U.S. Bureau of Land Management 1985:4) provided that: "The Interstate 10 corridor, because of resource concerns, will have a restriction regarding overhead lines. Due to the close proximity of important bighorn sheep waters and lambing grounds north of the Interstate and because of terrain features north of the Interstate, overhead transmission lines will not be allowed north of I-10 between townships 16 W. and 18 W.*

In practice, BLM has declined to approve overhead transmission lines either north or south of I-10, as was the case in both Southern California Edison applications to construct the Devers-Palo Verde #2 transmission line, in the late 1980s and most recently. We share BLM's concerns over the effect of construction, operation and maintenance of electric transmission lines on bighorn sheep, and add further concerns from the effect of constructing underground lines through this area as well. Since this designated utility corridor [ROW corridor] faces serious limitations on its use as a utility corridor [ROW corridor], including terrain features, we ask that BLM un-designate this utility corridor [ROW corridor] as part of this RMP process.

Response: Table 2-30 in Section 2.18 of the PRMP/FEIS shows four existing ROW Corridors in the planning area under Alternative A. There are a total of eight ROW Corridors included in the Proposed Plan (three are existing within Alternative A), reduced from the 10 ROW Corridors that were proposed in the Preferred Alternative of the DRMP/DEIS. After reviewing public comments on the ROW Corridors, YFO re-evaluated the corridor proposals and determined that it was appropriate to remove the Gila Mountains East (ROW 6), South Muggins (ROW 3), and a segment of Highway 95 between Blaisdell and San Luis from the PRMP/FEIS Proposed Plan.

A ROW Corridor in itself has no impacts on the landscape. The designations of ROW Corridors serve as boundaries to confine ROW authorizations in order to minimize adverse environmental impacts and the proliferation of separate ROWs. Each application for ROW proposals are evaluated on a case-by-case basis and are subject to individual NEPA reviews. ROW authorizations would be confined to designated corridors wherever feasible. The magnitude of

potential disturbance will determine the appropriate NEPA documentation, regardless of the location. A ROW authorization inside a corridor does not preclude a full NEPA analysis simply because it is placed within a designated corridor.

This document does not analyze the implementation of site-specific ROWs. The Devers to Palo Verde 2 transmission line is an implementation level decision outside the scope of this plan. Implementation-level decisions such as these go through an independent and site-specific NEPA analysis to ensure that an appropriate environmental review is conducted and the proposed transmission line would be in compliance with all other laws and regulations.

Comment 1127 (Center for Biological Diversity et al.): *Wind Energy Development Needs Further Analysis. We strongly support use of renewable energy generation, but as with all generation, it must be appropriately sited. We are concerned about potential wind energy development in the Trigo Mountains and Little Horn Mountains areas because of the designated and potential wilderness characteristics (DEIS, p. 3-104 to 3-105) and the conflicts with those wilderness characteristics. We also have concerns about potential negative effects on bighorn sheep in the Dome Rock Mountains. Sheep, especially during lambing time, are easily disturbed by various intrusions. Visual resource concerns apply to the Telegraph Pass area in the Gila Mountains. Just because these areas could meet wind speed criteria for wind energy development doesn't necessarily mean that they should be developed for wind energy.*

Likewise, the BLM should include criteria for siting of any solar panels, dishes or other renewable resources. Wilderness areas, and areas with sensitive wildlife, ACECs, should be avoided. The BLM should seek to generate any power needed for refuge offices or facilities with solar panels, however.

Response: This issue was addressed under section 2.18.1, Land Use Authorizations. Solar or wind generating facilities would not be allowed in VRM Classes I or II. The Little Horns is designated VRM Class II. The area south of the Trigo Mountains Wilderness is predominantly VRM Class II, excluding a ROW Corridor and the area north of the Wilderness is VRM Class III.

Comment 1171 (Center for Biological Diversity et al.): *The YFO Draft RMP/EIS may need to be amended due to construction associated with the North Baja Pipeline Expansion project. North Baja Pipeline, LLC has submitted an amended Right-of-Way Grant application to the BLM for the crossing of Federal lands. Approval of the application would require an amendment to the California Desert Conservation Plan and the Yuma District RMP, due to pipeline construction across the Milpitas Wash Special Management Area. Table 2-30 does not reference this utility corridor [ROW corridor].*

EPA recommends that table 2-30 be revised to include references for the construction associated with the North Baja Pipeline Expansion project.

Response: The designation of the Milpitas Wash Special Management Area is not being carried forward to the PRMP/FEIS. If the Proposed Plan is approved as proposed, the Palo Verde Mountains Re-route ROW Corridor would provide for the North Baja Pipeline.

Public Concern 3: Clarity of Information

Comment 724 (USIBWC): *Map_2_12b_Lands_Realty_Mineral_AltB1.pdf. The map shows a utility corridor [ROW corridor] in the Limitrophe Reach. Is that so, or is this a misrepresentation by the reviewer due to possibly to the width of the symbol used for utility corridors [ROW corridor]?*

Response: The Proposed Plan was changed in the PRMP/FEIS to remove the ROW Corridor segment referred to in your comment. This is identified as the Parker-Blaisdell ROW Corridor from the intersection of sections 20, 21, 28, and 29, T. 8 S., R. 21 W., to the International Boundary.

Public Concern 4: Agency Rules, Plans, Policies

Comment 1123 (Center for Biological Diversity et al.): *The Existing Palo Verde-Devers Utility Corridor [ROW Corridor] Fails to Meet BLM's Own Standards for a Utility Corridor [ROW Corridor] and Needs to Be Undesignated. The DEIS states that designated utility corridors [ROW corridor] will be one mile wide. Along the BLM-designated Palo Verde-Devers corridor, there are already an electrical transmission line (Southern California Edison's) and a natural gas pipeline. Southern California Edison (Edison) has applied to construct a second electrical transmission line along the same route (Devers-Palo Verde #2), and BLM supports use of that route. If Edison is successful in obtaining all required permits and approvals, the second power line passing through the KOFA National Wildlife Refuge, along with the existing Edison power line and the natural gas pipeline, will completely fill the area between adjacent wilderness areas on the refuge. No room will be available for more above or below ground utility lines because of insufficient separation.*

In addition, the KOFA National Wildlife Refuge has just issued a compatibility determination which states that the second power line (Devers-Palo Verde #2) is incompatible with refuge purposes (the decision document can be found online at:http://www.fws.gov/southwest/refuges/arizona/Kofa%20NWR%20Compatibility%20Determination- SCE%20ROW.pdf). As far as designating a utility corridor [ROW corridor] is concerned, it doesn't make any difference whether the Edison Devers-Palo Verde #2 transmission line is ultimately built through the refuge or not. It just doesn't make sense to designate a utility "corridor" [ROW corridor] up to the east and west sides of the refuge because a) if Devers-Palo Verde #2 is built across the refuge, no further pipelines or power lines can be accommodated there, and b) while BLM can designate utility corridors [ROW corridors] on BLM-administered land, but not US Fish & Wildlife Service-administered National Wildlife Refuges, and the Fish & Wildlife Service doesn't designate utility corridors [ROW corridors] as part of their planning process, and since the Fish & Wildlife Service has found Devers-Palo Verde #2 to be incompatible with the mission and purposes of the refuge, and without buy-in from the Fish & Wildlife Service, a utility corridor [ROW corridor] that requires crossing a National Wildlife Refuge is meaningless. We therefore ask that BLM un-designate the Palo Verde-Devers Utility Corridor [ROW Corridor] as part of this planning process.

Response: The Palo Verde-Devers is an existing designated ROW Corridor, which was designated in the 1987 Yuma District RMP. This corridor has existing authorizations within, and

it is appropriate under FLPMA to maintain as an existing corridor in order to minimize environmental impacts and reduce ROW proliferation. Each new ROW proposal will require an individual, site-specific NEPA Analysis. These authorizations are approved only after compliance with NEPA, applicable environmental laws, and other land-use plan decisions. Stipulations and mitigation measures are included in all land-use authorizations which must be adhered to throughout implementation.

Public Concern 5: Cultural Resources

Comment 104: *Utility corridors [ROW corridor] should not disturb or destroy significant cultural areas.*

Comment 1423 (Quechan Tribe): *The proposed development of utility corridors [ROW corridors] could result in destruction or significant damage to cultural resources. The Tribe requests BLM to limit both the number and allowed width of proposed corridors. The Tribe also requests BLM to avoid locating utility corridors [ROW corridors] in areas with cultural resources of significance to the Tribe. BLM must also comply with its obligations under the National Historic Preservation Act (NHPA) and other environmental and cultural resources protection laws, including notice to and consultation with the Tribe, prior to approving any site-specific utility development plans... Finally, as trustee to the Tribe, BLM should reject any proposals to develop utility corridors [ROW corridors] within the exterior boundaries of the Fort Yuma Reservation absent the express consent of the Quechan Tribe.*

Response: Following review of public comments, YFO staff re-evaluated the ROW Corridor proposals in the Proposed Plan. The PRMP/FEIS removed two ROW Corridors at South Muggins and East Gila Mountains and a segment of a third corridor in the Limitrophe along the lower Colorado River south of Yuma. Several of the proposed ROW Corridors in the Proposed Plan overlap with areas of known cultural resource sensitivity, such as SCRMAs. If land use authorizations proposed within those ROW Corridors cannot be redesigned to avoid culturally sensitive locations (i.e., cultural sites or SCRMAs that are allocated to Traditional Use, Conservation for Future Use, or Public Use), direct and indirect impacts to cultural values would be minimized pursuant to applicable cultural resource laws and regulations. For any cultural properties identified inside ROW Corridors, YFO will comply with Section 106 of the NHPA to mitigate impacts to significant sites. These management actions to protect cultural sites can be found in the Chapter 2 Cultural Resources section. In addition, YFO will notify and consult with all interested Native American tribes for proposed actions within ROW Corridors that have a potential to impact cultural sites of importance to the tribes.

3. Communication Sites and Facilities

Comment 59: *Communication sites should also be limited and the KOFA and Airway Beacon communication sites retired.*

Response: The Proposed Plan does not include Airway Beacon and Kofa as designated communication sites as shown in Section 2.18, Table 2-30.

4. Land Actions or Tenure

Comment 330: *I would really like you to attempt to do a land swap with the Yuma Proving Ground to open up access to the Cinnabar Mine. People are going there anyway, lets make it legal. I would also encourage land swaps instead of sales.*

Response: The YPG lands were withdrawn for military purposes and management of those lands lies with YPG. Access to the Cinnabar Mine remains the responsibility of YPG.

5. Disposals

Comment 60: *Limit the amount of land available for disposal to only those lands already identified in the 1992 amendment to the RMP, a total of 4,614 acres.*

Response: All land disposal actions are discretionary and are required to be analyzed through NEPA prior to final decision. Section 203 of FLPMA states three criteria to apply in identifying public lands suitable for disposal by public sale. The criteria are that a) the tract of public land is difficult and uneconomical to manage as part of the public lands and is not suitable for management by another Federal department or agency, b) the land is no longer required for a specific purpose, or c) disposal would serve important public objectives.

G. SPECIAL DESIGNATIONS

1. Designations/Management

Public Concern 1: Clarity of Information

Comment 1169 (EPA): *The FEIS should specify why BLM selected Preferred Alternative E, which contains three ACECs, rather than Alternative D, which contains seven ACECs. The FEIS should also clarify why the Limitrophe should be classified as a CMA, rather than an ACEC. On March 9, 2007, we spoke to Micky Baily (BLM) who provided additional clarification on this topic. The explanations she provided regarding the designations were reasonable and should be incorporated in the FEIS. The reasons for this decision and the benefits associated with it should be more clearly described in the FEIS.*

Response: Please refer to new sections in Appendix 2-A, Proposed Plan Management Strategy for each ACEC.

Public Concern 2: Protection of Public Access

Comment 254: *The designation of something for critical area study, the designation of something as wilderness, all of this is additional ways to keep the public from having access to public lands.*

Response: The PRMP/FEIS does not propose to entirely restrict public access to the public lands. The public will continue to be provided with non-motorized access within proposed Closed OHV Management Areas.

Subconcern: Recreation

Comment 1297 (Huachuca Hiking Club): *I am concerned that recreational opportunities within the Yuma East Undeveloped SRMA may be drastically limited by the following proposed designations: 1) Palomas Plain ACEC; 2) the Desert Mountains WHA; 3) the Palomas Plains WHA; and 4) the Wildlife Movement Corridors WHA. If not carefully implemented, these designations could have a cumulative adverse impact on BLM's goals for recreation management. I support the DRMP decision to exclude the Palomas Plain ACEC from the preferred alternative, as it would in my view add an unnecessary layer of complexity and restrictions.*

Response: As a major component of multiple-use public land management, sustainable recreation opportunities would continue to be planned and managed within all areas proposed for designations or allocations.

Subconcern: Off Highway Vehicle Use

Comment 1114 (Center for Biological Diversity et al.): *Landscapes with Special Designations Must be Protected Via Restrictive ORV Management Designations. We concur with inclusion of the proposed 11,700-acre Dripping Springs ACEC within the Preferred Alternative. We assume that potential access needs to private property or valid existing mining claims preclude the BLM from closing the core 640 acres of the proposed ACEC outright to ORV use. We further assume that the BLM currently is proposing to designate motorized uses in the 640-acre area as Limited to Authorized Uses. As such, we encourage the BLM to also apply the ORV designation of Limited to Authorized Uses to a large portion of the remainder of the proposed ACEC.*

Other landscapes proposed for special designation by BLM for designation as ACEC include sensitive archaeological resources and rare and biologically important riparian habitat (e.g., the Gila River Cultural Area/Sears Point ACEC) that are adversely being impacted by ORV uses. The Preferred Alternatives must consider closure to ORV use in such areas in order for the BLM to better protect these and other important resources. At a minimum, the ORV management area designations for these areas should be Limited to Authorized Uses.

The ramification of BLM's designation of ORV management areas within the current RMP will be felt for decades to come. The agency will not be in a position to enact area-wide ORV closures as part of the forthcoming Travel Management Plan (TMP) process, as described in the DRMP/DEIS, because BLM authority largely will be limited to either accepting or limiting in some manner ORV use on inventoried routes. Given that ORV management area designations can only be changed through amendment to theRMP, it is unlikely that the BLM would have the political will to enact area-wide closures once the ORV-riding public has become accustomed to having legal access within sensitive landscapes. Therefore, we are concerned that the BLM intends to forego an important opportunity via the current RMP to curtail damaging ORV use

within landscapes identified as in need of heightened protection. It is our hope that the BLM would exercise its authority via the RMP to preclude damaging ORV use in these sensitive landscapes or portions therein and rely on the forthcoming TMP process to refine appropriate travel management networks in landscapes where ORV use poses fewer conflicts.

Response: The Proposed Plan of the PRMP/FEIS proposes to designate a 400-acre Closed OHV Management Area within the proposed Dripping Springs ACEC. The remainder of the proposed 11,700-acre ACEC is proposed as a Limited OHV Management Area where motorized travel would be limited to existing inventoried routes until designation. The Proposed Plan of the PRMP/FEIS proposes to designate a 1,400-acre Closed OHV Management Area at the proposed Sears Point ACEC and a 1,900-acre Closed OHV Management Area in the proposed Muggins Mountains SCRMA.

Subconcern: ROW Corridors

Comment 1122 (Center for Biological Diversity et al.): *We appreciate the BLM's Management Action that utility corridors [ROW corridors] will "Avoid special designation areas and environmentally sensitive areas such as SCRMAs and WHAs." (DRMP/DEIS, p. 2-131). However, these utility corridor [ROW corridor] exclusion areas should explicitly include wilderness (and areas immediately adjacent to it), ACECs, and Cooperative Management Areas (CMAs) and "avoid" should mean true avoidance without exception. Too often these areas have been chosen as a "preferred alternative" for utility corridors [ROW corridors] such as the decision to locate the existing San Diego Gas & Electric transmission line adjacent to the Muggins Mountains Wilderness Area and this RMP's proposals to locate 1900 acres of utility corridor [ROW corridor] in the Big Marias ACEC and 300 acres of utility corridor [ROW corridor] in the proposed Limitrophe Cooperative Management Area (DEIS, pp. 4-74 to 4-75). The RMP should explicitly state that utility lines will not permitted in the Big Marias ACEC and proposed Limitrophe CMA because of the significance and sensitivity of their cultural or natural resources.*

Response: The ROW Corridors were re-evaluated based on public comments and two additional corridors (Gila Mountains East [ROW 6] and South Muggins [ROW 3]) were removed from the PRMP/FEIS Proposed Plan. New ROW applications in these two areas would be evaluated on a case-by-case basis. All the remaining ROW Corridors proposed in the Proposed Plan are located within areas where utility lines currently exist. Limiting corridors to these established areas minimizes impacts to resources. The Wilderness Act does not provide for buffers surrounding Wilderness boundaries to minimize impacts from actions such as ROW Corridors. However, the document has been revised by adding a Management Action in Section 2.18.1.C as quoted here: "Avoid special designation areas and environmentally sensitive areas such as SCRMAs and WHAs to the maximum extent possible. Appropriate mitigation would be required when avoidance is not possible."

Comment 145: *Nothing ruins the sight of a wilderness area like a bunch of utility poles.*

Response: Wilderness management is guided by the Wilderness Act of 1964 and the Arizona Wilderness Act of 1990. The BLM can not buffer Wilderness Areas by refusing authorizations adjacent and outside Wilderness Areas. The aforementioned policies apply only to those areas

directly within Wilderness boundaries. For more information on the location of ROW Corridors, please see Map 2-12e. Individual ROW applications are analyzed on a case-by-case basis.

Public Concern 3: Palomas Plain

Comment 517: *The Palomas Plain parcel of the planning area is one example of an exceptionally valuable unfragmented habitat for game animals. Many of these areas also happen to be inviting places for ORV use and this poses a major threat to the critical qualities and the planning area that invite ORV use will demand proactive measures and active monitoring values harbored in these tracts. Disturbance of desert pavement or stabilized soils has a high probability of altering water run-off and creating a cascade of long-duration changes in vegetation affecting an area far out of proportion to the original changes. Maintaining these parcels so as to ensure they remain contiguous, viable game habitat that are connected to adjacent areas and secure from uncontrolled ORV incursion needs to be a top agency priority.*

Response: The Proposed Plan would designate the Palomas Plain as a WHA to maintain the existing functional unfragmented wildlife habitat (see Section 2.7.2 D of the PRMP/FEIS). In addition, The Proposed Plan of the PRMP/FEIS proposes to designate the area as the Yuma East Undeveloped SRMA, which would be proactively managed to intentionally sustain dispersed and undeveloped recreation opportunities and experiences.

Public Concern 4: Walters Camp

Subconcern: Cultural Resources

Comment 1417 (Quechan Tribe): *The Walter's Camp area, which is a continuation of the Indian Pass area, is of significant importance to the Tribe. Many cultural features, including a sacred trail network, are present in this area. The Tribe requests that BLM designate the Walter's Camp as an ACEC, the lands should be managed for long-term preservation as an SCRMA with a 'traditional use' designation... The Tribe requests that BLM designate the Walter's Camp area as an ACEC and close the protected lands to all OHV use.*

Page 2-22 of the DRMP, regarding the Walter's Camp ACEC, states that BLM will coordinate and collaborate with Indian tribes' and other agencies on issues relating to the Walter's Camp lands. The Tribe has attempted to relay its concerns with the management of these lands to BLM on many occasions, but BLM has not acknowledged the Tribe's concerns. What specific steps will BLM take to ensure the Tribe's concerns are appropriately acknowledged in the future? What specific steps will BLM take to ensure that the cultural resources within the Walter's Camp lands are not harmed by OHV users?

Response: Based on information provided by the Quechan during coordination and consultation for this RMP revision, the Walters Camp SCRMA has been re-allocated in the PRMP/FEIS to Conservation for Future Use and Traditional Use (see Section 2.15.4). BLM looks forward to working with the Quechan to reduce impacts to resources in the Walters Camp area, and will coordinate and consult with the Quechan for any management or planning for that area as required by NHPA and NEPA. The upcoming travel management planning process for the

Ehrenberg-Cibola Travel Management Area would designate OHV routes in the Walters Camp area to reduce impacts to cultural resources.

Comment 27 (Tamarack Lagoon Corp.): *The North Bank Milpitas Wash area (Southern 1/4 of Section 6) requires continued protection and inclusion in the SCRMA due to the presence of the sacred Xam Kwitcam trail. Map 2-8e (Alternative E) shows the present 122 acre Restricted Area removed.*

Comment 28 (Tamarack Lagoon Corp.): *The North Bank Milpitas Wash area (Southern 1/4 of Section 6) requires continued protection and inclusion in the SCRMA due to the proximity of the BLM RV Park concession and the high ORV use known to impact this area. Map 2-8e (Alternative E) shows the present 122 acre Restricted Area removed.*

Response: In the DRMP/DEIS, the Walters Camp SCRMA did not include the North Bank Milpitas Wash travel management restriction area within its boundaries. The document has been revised under the Proposed Plan to extend the Walters Camp SCRMA polygon to the north, so that it includes BLM-administered lands in Township 11 South, Range 22 East, Section 6 S½, San Bernardino Meridian, Imperial County, CA.

Subconcern: Lands and Realty Actions

Comment 29 (Tamarack Lagoon Corp.): *Tamarack Lagoon has proposed that BLM include and manage that portion of Section 7 west of Walters Camp Road under the ACEC and/or SCRMA designation. Please confirm BLM's intent and the status of this arrangement (MOU). [This area] is owned by Tamarack Lagoon Corporation, a non-profit corporation comprised of 10 local homeowners dedicated to preserving the desert environment. Inclusion of TLC land in the proposed ACEC and/or SCRMA is contingent upon similar designation of 122 acres of the adjacent Section 6 and limiting the RV park concession to the 18 acres currently in use.*

Response: Under the Proposed Plan, all BLM lands within the Walters Camp polygon on Map 2-12d would be managed as a SCRMA. Management prescriptions for the Walters Camp SCRMA would apply to BLM-administered lands only. The YFO has modified Maps 2-2d, 2-12b, and 2-12d in the PRMP/FEIS to include the 122 acres in Section 6 within the Walters Camp ACEC and SCRMA proposals. Any proposals for new or expanded concessions would be assessed on a case-by-case basis.

Public Concern 5: Limitrophe

Subconcern: Adequacy of Analysis

Comment 1064 (National Wildlife Federation): *We are also concerned that even under Alternative D, the guidance for management of the Limitrophe ACEC is somewhat vague. BLM identifies as desired future conditions balancing public health and safety, protecting and maintaining riparian and marsh vegetation, protecting characteristics identified as significant by the Cocopah Indian Tribe, and providing for tribal sacred site access. Although we agree that these are appropriate as desired future conditions, we believe considerably greater attention should be given to the specific means of achieving those objectives -- whether through BLM*

actions, actions by other agencies or jurisdictions, or through partnerships with Tribal, private, and other stakeholders. ACEC designation should be viewed as an important step towards cooperative management efforts, not as an alternative to such efforts.

Specifically, the Draft RMP/EIS indicates that BLM would "prepare an ACEC management plan in coordination with stakeholders: allow no surface occupancy for leasable minerals (i.e., oil and gas), and prohibit recreational shooting, as well as "work[ing] collaboratively with interested stakeholders for coordinated management purposes." This does not answer questions such as what would be the vegetation management strategy, what resources would be available for restoration, and how would conflicts between Tribal and Border Patrol goals be addressed or resolved?

Comment 1068 (National Wildlife Federation): *The Limitrophe CMA section states that a CMA management plan would address such issues as invasive species, habitat restoration, public safety, etc. The Yuma RMP, however, provides no detail as to exactly how any of the management issues for the Limitrophe CMA might be addressed, save through collaborative work with interested stakeholders. It appears that management actions for the CMA were decisions that were deferred until a later date. As such, these various management actions [at] some time in the future would require separate NEPA processes. Nonetheless, the lack of clarity on the management of the Limitrophe CMA in the Yuma RMP is not sufficient for the public to understand the implications of the CMA.*

Response: YFO currently participates in two different stakeholder groups related to the Limitrophe area for which no formal agreements exist. These are the Borderlands Management Task Force composed of agencies and law enforcement entities with jurisdiction on the Limitrophe; and the Colorado River International Conservation Area (CRICA) organized by the Cocopah Tribe with assistance from the National Wildlife Federation and composed of numerous stakeholders from the United States and Mexico. The intention of the proposed Limitrophe CMA is to continue working with the two groups, formalize roles and responsibilities through an MOU which identifies stakeholders, their statutory obligations and jurisdictions, and outlines goals and objectives for the group. A CMA is not a designation or allocation under FLPMA, but identifies actions prescribed for an area.

The PRMP/FEIS lists management actions that BLM could apply to the Limitrophe. However, the MOU and management plan (listed as Management Actions) would be developed by the group and would be more specific, incorporating information from other stakeholders. BLM would be a participant in the group, but would not manage the group or make decisions for the group. BLM is only authorized to make decisions for public land in accordance with Federal law. State Director guidance directed the use of less restrictive management options in land use planning due to overarching border issues that include significant public health and safety, and national security concerns that could result in the waiver of environmental compliance. BLM staff considered that the Limitrophe area could be managed effectively as a CMA and allow the needed flexibility to address complex management issues affecting this area.

Subconcern: Clarity of Information

Comment 1073 (National Wildlife Federation): *It is unclear how management strategies, environmental and cultural resources protection, benefits to fish and wildlife, and environmental consequences might differ between the ACEC and CMA....BLM should clarify why the stakeholder collaboration of a Limitrophe CMA is preferable to the stakeholder collaboration of a Limitrophe ACEC. While a CMA may be a "flexible" mechanism to manage the Limitrophe, the CMA does not appear to have any real means of enforcement...the Yuma RMP must make that point explicitly clear. And, if that is the case, it would be beneficial for BLM to explain why a Limitrophe CMA is preferable to a Limitrophe ACEC...BLM should disclose the "jurisdictional complexities" argument and in what ways this determined the preference of a CMA over an ACEC...Over the last five years, Colorado River Internationals Conservation Area (CRICA) committee members have consulted on the management and protection of the Limitrophe and collaborated to identify the mechanism best suited to meet those objectives. Through these consultations, CRICA members identified and agreed that an ACEC was the most appropriate BLM management mechanism for the Limitrophe.*

The Yuma RMP does not disclose what type of resources BLM would commit either to a Limitrophe ACEC or a Limitrophe CMA. The Yuma RMP should clarify the resources being committed by BLM, including staff, monetary, equipment and other resources, to each designation. BLM should explain any differences in resource allocation.

Response: It is true that the Limitrophe ACEC and the CMA descriptions in the DRMP/DEIS are similar. This is because the goals for each type of area are similar, and the boundaries are the same. For the Limitrophe CMA, YFO is proposing to write a management plan in cooperation and coordination with other stakeholders. A CMA is not an allocation under FLPMA, whereas an ACEC is a designation under FLPMA. For the CMA, YFO proposes an MOU which would outline the vision for the area, stakeholders, authorities and jurisdictions. The group would write a multi-jurisdictional plan together. YFO would be a participant in the group, which would operate independently from BLM. YFO would maintain decision-making authority for BLM-administered land. Other agencies and jurisdictions would exercise their authorities as allowed by legal constraints. The group would assist in the decision making process by keeping YFO informed and collaborate for an effective community-based partnership.

Comment 1075 (National Wildlife Federation): *What would it mean to "balance public health and safety issues...with resource protection and appropriate recreation opportunities, while considering diverse agency constraints" (page 2-24)? What are the applicable agency constraints? What specifically would this mean with regard to, for example, the removal and restoration of riparian vegetation? Both the ACEC and CMA description repeatedly mention "agency constraints" and propose litter and dumping control as "funding and personnel allow." What are those agency, funding, and personnel constraints? How would they be affected by the various alternatives?*

Response: The YFO is working with the CRICA steering committee and supports collaboration of this nature for the Limitrophe area. As described in the CMA proposal, BLM would like to pursue an MOU with stakeholders, where authorities, jurisdictions, roles and responsibilities of stakeholders would be identified. Until an MOU and plan is written, or the group develops an

action plan for the area, YFO does not have a clear sense of the complex jurisdictions of the area. The agency constraints are the laws and responsibilities that drive each agency and organization. The text has been revised to clarify what management actions BLM would like to propose to the group for a Coordinated Management Plan. One of the purposes of a plan is to identify projects that can be implemented with a budget. Funding could become available through the various stakeholders for actions identified in the plan.

Subconcern: Coordination

Comment 1066 (National Wildlife Federation): *According to a presentation by the BLM to the Colorado River International Conservation Area (CRICA) group on February 8, 2007, a CMA is a flexible, diverse, community and partnership-based approach to land management that involves the participation of, but is not directed by, the BLM. Given this description, it would appear that BLM's intent is to avoid application of the Federal Advisory Committee Act. While we strongly endorse the involvement of multiple stakeholders in sharing information regarding conditions and objectives of the Lower Colorado River, we note that attempts to conduct a stakeholder process while simultaneously avoiding the Federal Advisory Committee Act may well render such a process ineffective. In particular, we note that if any sort of working group is to offer specific advice or recommendations to the BLM, the likelihood of FACA application is substantially increased. If BLM intends to try to circumvent FACA, any working group established would be constrained in its ability to accomplish what should potentially be its most useful function -- providing consensus- based recommendations for management.*

Response: The special requirements of FACA apply to many groups that advise or make recommendations to Federal agencies, Congress or the president. In specific terms, FACA applies to committees, boards, commissions, councils, conferences, panels, task forces, or other similar groups "established by" or "utilized by" the federal government. If a federal agency creates, manages, or controls such a group, it must be specially chartered and must follow FACA rules.

The CRICA group is an informal steering committee composed of land managers and stakeholders that meet to coordinate management of lands in the Limitrophe area, the group is not managed or controlled by BLM. CRICA was not established by or utilized by BLM to reach consensus on the management of BLM-administered lands in the Limitrophe area. BLM appreciates CRICA's contributions toward finding solutions for managing the Limitrophe area as a whole, recommendations on individual projects and comment letters from the group and its members have been considered during the BLM decision-making process.

Comment 1076 (National Wildlife Federation): *We believe that inter-governmental, inter-agency, and governmental/nongovernmental cooperation are essential to achieving what we hope are common goals for the continued vitality of the Lower Colorado River.*

Response: YFO would continue to be involved in several partnerships and coordination groups that include State, Federal and local agencies, NGOs and international interests regarding lower Colorado River goals. NEPA requires Federal agencies to work cooperatively with Federal, State, and local governments (and other concerned public and private organizations). NEPA

emphasizes agency cooperation early in the process. Additionally, agencies that have special expertise with respect to issues must be invited to participate in the analysis as Cooperating Agencies.

Comment 1419 (Quechan Tribe): *The proposed Limitrophe ACEC falls within the traditional lands of the Quechan Tribe. The Tribe has previously informed BLM of its significant ties to this area; however, BLM has not included the Tribe in consultations or sought the Tribe's input regarding this area. To date, there has not been any cultural resource study conducted for this area. The Tribe requests that BLM conduct a complete cultural resource study in the proposed Limitrophe ACEC, and that BLM consult with the Tribe in determining the proper designation and management policies for this area. If BLM does not designate the Limitrophe areas as an ACEC, and manages it as a Coordinated Management Area, the Tribe requests to be a party to the MOU referred to on page 2-24 of the DRMP.*

Response: BLM agrees that Quechan representatives should be involved in all management and planning for that area. The Tribe will continue to be informed of planning meetings for the Limitrophe. In addition, the Tribe is welcomed and encouraged to become a party to an MOU for the proposed CMA or to actively participate in the development of an ACEC plan, depending upon which designation is carried forward in the ROD. We understand that it is important to the Quechan that the Limitrophe be properly evaluated for cultural resources. BLM will comply with the NHPA and follow the guidelines as outlined in 36 CFR 800.4 for determining the level of effort necessary for the identification of cultural properties in the Limitrophe area.

Subconcern: Coordinated Management Area (CMA)

Comment 468 (Environmental Defense): *These comments are limited to the BLM's management responsibilities and objectives in the limitrophe reach of the Colorado River, from Morelos Dam to the Southerly International Border. We support the Coordinated Management Area framework proposed for the limitrophe in BLM's preferred alternative. The limitrophe area is unique, because it is a rare and valuable example of native habitat on the Lower Colorado River, and because it is subject to an extraordinary number of overlapping jurisdictions, each with distinct concerns and management objectives. The goals of the CMA are sound, to unite the mandates of these multiple jurisdictions, and to provide resource protection. In particular we are pleased to see BLM note the importance of including stakeholders and agencies from Mexico in planning for this binational reach of the Colorado.*

Response: The YFO acknowledges and appreciates the support for the Limitrophe area CMA. The CMA was incorporated into the Proposed Plan in the PRMP/FEIS.

Comment 1070 (National Wildlife Federation): *The Limitrophe CMA, and its description in the Yuma RMP, should be guided by a set of standards. For example, BLM and Sonoran Institute produced "A Desktop Reference Guide to Collaborative, Community-Based Planning" which outlined "guiding principles for successful collaboration." BLM must be absolutely transparent about the "decision space" allowed within a collaborative stakeholder committee for the Limitrophe CMA and clearly outline "decision-making authority."*

Response: Section 2.4.2 was rewritten to clarify that BLM would participate in an MOU if the

group agrees one is needed. The MOU and CMA plan could be written involving all stakeholders to guide management of the area. BLM agrees that the decision space of each entity participating in the group needs to be clarified, as well as roles and responsibilities. Several other jurisdictions and land managing entities are involved in the area; the CMA would clarify roles and responsibilities. If the group is effective, BLM decision-making would benefit by information shared by the group.

Comment 1067 (National Wildlife Federation): *The Limitrophe CMA also includes a series of "management actions" with prohibitions on surface use for mineral extraction and recreational shooting. These are, in our view, appropriate.*

Response: While the surface occupancy restrictions for leasable minerals were retained in the PRMP/FEIS, the proposal to restrict recreational shooting within the Limitrophe CMA has been removed from the Proposed Plan. For the life of the RMP, the BLM will continue to monitor for impacts and conflicts from recreational shooting within the Limitrophe and throughout the rest of the YFO to determine if recreational shooting restrictions are warranted. Recreational shooting restrictions are not considered RMP-level decisions, and 43 CFR 8364 provides the BLM with the authority to establish recreational shooting restrictions at any time to protect persons, property, and public lands and resources.

Comment 1065 (National Wildlife Federation): *The Yuma RMP also proposes the creation of a Limitrophe CMA in Alternative B and Preferred Alternative E. Although we agree in principle that inter-governmental, inter-agency, and governmental/nongovernmental cooperation is critical towards proper management of the Lower Colorado, a Coordinated Management Area approach seems, particularly if BLM does not intend to seek a Federal Advisory Committee charter, unlikely to be effective in achieving those objectives.*

Response: BLM encourages coordination and partnerships without developing a charter to guide these partnerships in accordance with FACA. A CMA would allow BLM and other participating agencies and groups to share information and use it for informed decision-making. The group would function independently from all the multiple agencies and jurisdictional authorities present in the area, and no agency or organization would control or dominate the group. The group can function under an MOU and develop goals and objectives for the area. If the group wanted to have voting authority for management over or for any of the agency authorities, then a charter would be needed under FACA. YFO would be in conformance with the plan and follow management prescriptions for riparian values, cultural resources, fish and wildlife, etc. on BLM-administered lands.

Subconcern: Area of Critical Environmental Concern (ACEC)

Comment 1071 (National Wildlife Federation): *While the relevance and significance criteria could certainly justify ACEC designation, the BLM proposes ACEC designation for the Limitrophe only under Alternative D, the "preservation" alternative. It is unclear how BLM determined that the Limitrophe CMA was preferable to an ACEC, or what alternative designations might actually mean in practice for issues of vegetation management, fire control, water management, cultural resources, health and safety, or wildlife habitat.*

Comment 1077 (National Wildlife Federation): *Below, we outline the multiple justifications for the Limitrophe ACEC to be included in the preferred alternative. The Limitrophe ACEC is a significant riparian corridor...provides significant biological support for maintaining bird populations that attracts many birders every year to the Yuma Birding Festival...would support the Lower Colorado Multi-Species Conservation Program...is valuable for its shallow wetlands...would respect Cocopah's tribal sovereignty...and their interest in protecting natural values...recognize the Cocopah's bi-national collaboration [efforts]...can lead to management strategies that include the removal of invasive plant species...will have no impact on any of BLM's plans for economic development, environmental protection, and other goals...Therefore we strongly support the Cocopah's nomination of the Limitrophe ACEC and its inclusion in the preferred alternative for the Yuma RMP.*

Response: Because of the complexity of the border issues a CMA is the Proposed Plan for management of the Limitrophe area. The values for which ACECs are designated are considered the highest and best use for those lands, and protection of those values would take precedence over multiple uses. An ACEC Evaluation Report can be found in Appendix 2-A which clarifies special management attention needed for each area proposed as an ACEC under the Proposed Plan. Appendix 2-A also describes other management prescriptions which would provide adequate resource protection for areas not proposed as ACECs in the Proposed Plan. The values attributed to the Limitrophe area under the various management sections in Chapter 2 would continue to be considered in the CMA.

Comment 725 (USIBWC): *Map_2_1d_Special_Area_Designations_Alt_D1.pdf. The designation "Proposed Area of Critical Environmental Concern" (ACEC) seems to be proposed for the entire Limitrophe Reach. The United States Section, International Boundary and Water Commission (USIBWC), owns property at the Morelos Diversion Dam and nearby boat ramp/cable crossing. Indicate the USIBWC property on the map and on realty maps. Recommended is portraying the USIBWC property in a manner indicating the developed portions fall into a "Developed Facilities" category or the "Urban/Development" category. The facility is for international operations, and is maintained by Mexico. Indicate that the facility is not entirely in the proposed ACEC.*

Response: BLM acknowledges developed facilities owned by USIBWC within ACEC boundaries. An ACEC designation can include land ownership other than public land. Participation in the management prescriptions for an ACEC designation is discretionary by the land owner. The “Urban/Development” category is terminology used to describe ROS and is specific to public land planning.

Public Concern 6: Dripping Springs

Subconcern: Wildlife Management

Comment 1191 (Arizona Desert Bighorn Sheep Society): *We are especially concerned with the Dripping Springs ACEC because it encompasses a very important bighorn sheep population adjacent to the New Water Mountains and the designation could cause increased human use and additional administrative implications with our conservation efforts. Sportsman advocacy is also a key element to survival of wild sheep populations and this ACEC designation threatens this*

advocacy with its associated access, hiking, camping, hunting and shooting restrictions. We would agree, however, to making the 640 acres surrounding the perennial water source day use only but feel it needs to remain open to hunting. Otherwise you are creating an unnatural and compressed refuge in a miniature park like setting and problems associated with overcrowding, forage, soil erosion, disease, competition and predation will likely arise. We would also agree to withdraw this 640 acre area from mineral entry and development.

Response: The proposed ACEC designation would not restrict hunting (See Section 2.3.5 B, Desired Future Conditions for the Dripping Springs ACEC). Management Actions for the proposed Dripping Springs ACEC would help protect the water supply.

Subconcern: Mining and Mineral Entry

Comment 1132 (Center for Biological Diversity et al.): *We concur with BLM's proposal to designate 11,700 acres as the Dripping Springs ACEC. However, because of the rare and fragile resources of this area, including a live spring and bighorn sheep and other animals that utilize it as a water source in an area subject to frequent drought, the whole 11,700 acres should be withdrawn from mineral entry (subject to valid existing claims and any in-holdings), not just the proposed 600 or 640 acres (the figure appears to vary on the same page of the DEIS at 2-17). Mining would be inconsistent with the purposes for which this area is established and could destroy the live spring that gives the area its name and reason for designation, as well as permanently disturb the wildlife.*

Response: All proposed ACECs have been reviewed and core areas of sensitivity have been highlighted for recommendation for withdrawal from mineral entry. When ACEC Management Plans are developed subsequent to the RMP process, additional lands may be recommended for withdrawal.

Subconcern: Recreation Management

Comment 1341 (AGFD): *Page 2-17, Section 2.3.5 B Management Actions, 2nd bullet, RMP Statement-Overnight camping would not be permitted: We do not believe it is necessary to close the whole ACEC to overnight camping. However, we do support closing the 640-acre area around the spring to overnight camping.*

Response: The Proposed Plan has been revised to prohibit only the 640-acre core area of the proposed Dripping Springs ACEC to day-use only.

Comment 1344 (AGFD): *Page 2-17, Section 2.3.5 B Management Actions, last bullet, RMP Statement- Close 640 acres of the area to…: We recommend changing to: Close 640 acres of the area around the spring to… We also recommend defining severe drought conditions as -2 or worse on the Palmer Drought Severity Index or another specific measure of drought severity.*

Response: The PRMP/FEIS has been revised to read: "Close the proposed 640-acre core area around the spring to public use during extreme or severe drought conditions to protect desert bighorn sheep populations, as recommended by AGFD."

Comment 1345 (AGFD): *Page 2-17, Section 2.3.5 B Administrative Actions, 3rd and 4th bullets, RMP Statement- Prohibit dead, downed…; Prohibit recreational shooting…: We do not believe it is necessary to close the whole ACEC to firewood collection and recreational shooting at this time. We believe it would be sufficient to just close the 640-acre area around the spring.*

Response: The YFO interdisciplinary team evaluated this issue and believes that the firewood collection prohibition is justified because of the scarcity of dead, downed and detached wood and the large numbers of winter visitors in this vicinity of the planning area. The proposal to restrict recreational shooting within all ACECs has been removed from the Proposed Plan of the PRMP/FEIS. For the life of the RMP, the BLM will continue to monitor for impacts and conflicts from recreational shooting within ACECs and throughout the rest of the YFO planning area to determine if recreational shooting restrictions are warranted. Recreational shooting restrictions are not considered RMP-level decisions, and 43 CFR 8364 provides the BLM with the authority to establish recreational shooting restrictions at any time to protect persons, property, and public lands and resources.

Subconcern: Access

Comment 327: *I adamantly oppose any closing of the Dripping Springs area. To call Dripping Springs a perennial water supply is really pushing a point. That spring doesn't produce enough water to keep one bighorn sheep alive, much less a herd. The topography of the immediate area surrounding the spring keeps all but foot traffic away from the petroglyphs and the spring itself. To call Dripping Springs a "World Class Cultural Resource" is ludicrous. That is putting a few petroglyphs on par with the Parthenon and the Pyramids.*

Response: BLM coordinates with AGFD for wildlife management including providing water for wildlife (see Section 5.3 of the PRMP/FEIS). The analysis showed Dripping Springs has relevant and important values and requires special management attention to protect these values (Appendix 2-A). One tool for protecting Dripping Springs is closure to motorized vehicles, which is done in the Proposed Plan for the east portion of the “core area”. This would close access to ¼ mile up to the spring.

Public Concern 7: Sears Point

Comment 1136 (Center for Biological Diversity et al.): *We support expansion of the Sears Point ACEC to 28,500 acres, as proposed in the Preferred Alternative E. We do have concerns about BLM’s plans to make this a “heritage tourist destination.” Visitation needs to be managed carefully so that the cultural and natural resources are not adversely impacted as a result of too many visitors. Conflicting uses also need to be eliminated from the area. We recommend that the whole area be withdrawn from new mineral entry, not just the proposed 5900 acres. Visitors should stay on designated trails and overnight camping should be prohibited. Vandalism and removal or rock art are important concerns, and this is why we recommend no overnight camping. IF BLM anticipates considerable numbers of visitors, a regular on-site presence needs to be established, in order to both assist in interpretation and prevent activities injurious to the cultural and natural resources.*

Response: YFO agrees that public visitation to the Sears Point interpretive area needs to be

managed carefully so that the cultural and natural resources are not adversely impacted. The purpose of developing an ACEC Plan is to mitigate potential conflicts from increasing visitation. The management actions for the Sears Point ACEC include prescriptions that limit visitors to designated trails, establishing a visitor host to interpret and maintain a presence in the area, and limiting visitation to day-use only in the 3,700-acre core area. The interdisciplinary team evaluated the entire 28,500-acre proposed ACEC for withdrawal from mineral entry and determined that a smaller area was sufficient because there is low mineral potential in the area (USDOI BLM 2005e).

Subconcern: Adequacy of Analysis

Comment 1418 (Quechan Tribe): *BLM evaluated an alternative that would designate 140,400 acres of land along the Gila River Terraces and Trails as a protected ACEC. DRMP, at p.2-18. This ACEC, if adopted would provide a comprehensive network of protection to cultural resources along the Gila River Terraces. BLM acknowledges that this large area contains 'prolific cultural resources.' However, BLM, without adequate explanation, declined to adopt this ACEC in its preferred alternative. The Tribe requests that BLM include the Gila River Terraces ACEC within its preferred alternative. Such designation would provide significant protection to the resources in this area over the coming decades.*

Comment 1416 (Quechan Tribe): *Sears Point ACEC: Upon closer review of BLM's proposal, BLM intends to 'promote the Sears Point mesas as a heritage tourist destination to enhance public understanding and appreciation.' DRMP, p. 2-20. BLM proposes to establish parking areas, construct host and visitor facilities, and promote tourist access through interpretative trails. DRMP, p. 2-21. The Tribe is extremely concerned with, and does not approve of, this aspect of BLM's proposal. The Tribe does not consider its cultural resources as tourist attractions. The affected resources are sacred to the Tribe and should be managed for long-term preservation and traditional use. The Tribe has specifically informed BLM that it does not want this sacred area developed, but BLM has ignored the Tribe's concern.*

BLM fails to describe how promotion and management of the Sears Point ACEC as a tourist destination is in the best long-term interest of tribal cultural resources. Given BLM's limited enforcement resources, it is unlikely that drawing additional tourists to the Sears Point area is consistent with 'protection and preservation of cultural and natural resources.' For example, public overnight camping should not be allowed without assurance of adequate enforcement and monitoring. Without additional monitoring, how will BLM ensure that visitors or overnight campers will not touch or deface petroglyphs or other sacred sites? Also, how does BLM intend to ensure that visitors stay on 'designated' trails?

Finally, OHV routes should not be allowed through any portion of the Sears Point ACEC.

Response: The Sears Point mesas have been managed according to the Gila River Cultural Area ACEC Management Plan, which was developed and approved by the Phoenix District in 1990. The plan states that "The public use category will be the primary use allocation for the Sears Point cultural area" (USDOI BLM 1990b). When Sears Point lands were transferred to the YFO planning area in the early 1990s, YFO continued to follow the prescriptions outlined in the 1990

Management Plan. Currently, hundreds of visitors are going to the Sears Point mesas annually. Section 2.3.5 F of this RMP includes several protective measures that are intended to reduce impacts from increasing public visitation, including firewood collection restrictions, limiting visitors to designated walking trails, establishing a parking area, installing interpretation, withdrawing portions of the ACEC from mineral entry, and establishing an onsite visitor host to watch over Sears Point. In addition, the document has been revised to include camping restrictions for the ACEC area. Under all alternatives, an ACEC plan would be prepared for the Sears Point mesas. This plan, which would be developed in coordination and consultation with all interested tribes, would balance public visitation and interpretation with resource protection.

We understand the tribe's concerns over impacts from OHV use to the resource values in the Sears Point ACEC. The Proposed Plan has been revised to include a Closed OHV Management Area that would protect the Sears Point mesas from OHV damage. In addition, a Travel Management Plan for the Gila River Valley TMA would be prepared within five years of the ROD for this RMP. For this plan, all inventoried routes in the Sears Point area would be evaluated and then designated as either open, limited, or closed. We would greatly appreciate the Tribe's input into these Travel Management Plans, and encourage your participation.

Subconcern: Recreation Management

Comment 1346 (AGFD): *Page 2-21, 2.3.5 E Management Actions, 5th, 6th, and 7th bullets, RMP Statements- …Limit overnight camping; Prohibit collection of…; Prohibit recreational shooting…: The Department does not believe it is necessary to limit overnight camping or prohibit firewood collection and recreational shooting in the whole ACEC at this time. We believe it would be sufficient to restrict these activities in the core area or in specific sensitive areas.*

Response: YFO changed the PRMP/FEIS by reducing the firewood collection and day-use restrictions in the Sears Point ACEC from 29,500 acres to 3,700 acres. The day-use restrictions are necessary to protect cultural resource values within the 3,700 core area with the highest concentration of cultural features. Firewood collection restrictions are necessary to protect the integrity of the nearby mesquite bosque within the ACEC. The proposal to restrict recreational shooting within all ACECs has been removed from the Proposed Plan of the PRMP/FEIS. For the life of the RMP, the BLM will continue to monitor for impacts and conflicts from recreational shooting within ACECs and throughout the rest of the YFO planning area to determine if recreational shooting restrictions are warranted. Recreational shooting restrictions are not considered RMP-level decisions, and 43 CFR 8364 provides the BLM with the authority to establish recreational shooting restrictions at any time to protect persons, property, and public lands and resources.

Public Concern 8: Big Marias

Comment 1134 (Center for Biological Diversity et al.): *The Big Marias ACEC should be expanded from 4500 acres to the 9200 acres proposed in Alternative D. It is hard to understand why BLM would not want to give further protection to an area that has "the single greatest concentration of geoglyphs in North America." (DEIS, p. 2-A.1). In fact, this argues for seeking national monument status and perhaps World Heritage Site status for the Big Marias cultural*

sites, rather than just ACEC status. The mineral and material quarries should be acquired and the area should be closed to vehicle access except on a limited number of designated, existing roads. Visitor access should be limited to designated trails. BLM should refrain from designating a utility corridor [ROW corridor] through such a sensitive area. Designating a utility corridor [ROW corridor] through the Big Marias ACEC violates BLM's planning criteria that "Utility corridors [ROW corridors] will avoid areas of designation such as priority wildlife habitat, special status species management areas, ACECs, wilderness, and cultural areas." (DEIS, p. 1-12).The most crucial objective for this area is to protect the cultural and natural resources from further degradation, while allowing for traditional Native American cultural practices.

Response: See Appendix 2-A for the rationale behind the Proposed Plan management strategy for the Big Marias ACEC. Routes in the Big Marias ACEC will be systematically evaluated during the upcoming travel management planning process for the Ehrenberg-Cibola Travel Management Area. Management Actions to protect relevant and important resource values in the ACEC have been incorporated into Section 2.3.4.A, Special Designations, and 2.12.3, Travel Management. The resource values within the existing 4,500-acre Big Marias ACEC, originally designated in the 1987 Yuma District RMP, continue to warrant special management attention as an ACEC. The 4,700-acre expansion area can be managed according to standard or routine management prescriptions. Under the Proposed Plan these 4,700 acres would be managed according to the Big Maria Terraces SCRMA and the Desert Mountains WHA allocations.

The Highway 95 California ROW Corridor has been retained in the Proposed Plan, since several existing authorizations follow this route and the corridor connects with ROW Corridors in adjacent BLM field offices. To resolve the contradiction in the document, the Management Action in Section 2.18.1.C.1 has been revised as follows: "New utility facilities within ROW Corridors would avoid impacts to natural and cultural resources within ACECs and SCRMAs to the greatest extent possible. If impacts could not be avoided, mitigation would be required."

Subconcern: Blythe Intaglios

Comment 232 (Sacred Sites Protection Circle): *I'm here with other group members from the Sacred Sites Protection Circle...what we are wanting is the introduction or the starting of the Memorandum of Understanding with our group concerning the Blythe intaglio... We as the Chemehuevi Indian Tribe is a federally recognized Indian Tribe, recognized by the Secretary of Interior maintaining a government to government relationship with the United States. And so what we had proposed to them was to become in partnership with our community, our committee in seeking that the BLM release the Blythe Intaglios into our stewardship. So we were just wanting to bring up what the standing of that was with regards to the resolution that was requested by BLM and that [of] the desert conservation council.*

Comment 236: *The Blythe Intaglios are sacred sites and they have an urgent need to be protected from the public misuse. We can see the misuse with all the power wheels, the desecration of the land that we go see and there's totally no public awareness... Make a priority of protecting the Blythe giant intaglios and all the sacred sites in your jurisdiction.*

Response: BLM agrees that the Blythe Intaglios site is extremely important and needs to be

protected. The Management Actions found in Section 2.3, Special Designations Management, for the Big Marias ACEC are meant to address this concern. In particular, the document proposes a Cultural Resource Management Plan for the ACEC, which would be developed in consultation with interested Native American tribes. The plan should be a vital tool for long-term preservation of the intaglios. BLM is developing a partnership with nonprofit organizations and other interested stakeholders that is dedicated to identifying funding to protect and interpret the Blythe Intaglios. We are optimistic that this partnership and assistance from groups like the Sacred Sites Protection Circle will help expedite the BLM's protection of this sacred site.

Comment 238: *Intaglios [are] in fact very definitely a cultural landmark that's got to be protected. And very definitely there has been destruction of the area... You just don't have the manpower and resources to do so, whether they have to be video taping or something like that set up there. There should be some kind of increased security definitely over the intaglios that we have in the area.*

Response: YFO understands that intaglios along the Colorado River in the vicinity of Blythe are very important to the Sacred Sites Protection Circle. To address your concern over growing impacts to intaglio features, we are proposing to develop a Cultural Resource Management Plan for all intaglio features that are located in the Big Marias ACEC. This new management action can be found in Section 2.3 Special Designations Management. There are also additional management actions in this same section and in Section 2.15 Cultural Resource Management that would provide increased protection for the intaglios. BLM would need to work with its partners and interested Native American tribes and groups to implement the measures that would protect the intaglios.

2. Wilderness

Public Concern 1: General

Comment 65: *I strongly support more wilderness, no roads and less humans.*

Response: Wilderness is a Congressional designation and is outside the scope of this RMP.

Comment 94: *I am opposed to any development in what remains of the southwest deserts. I believe in limiting the number of humans that are allowed to enter wilderness areas and if you [can't] go on foot you can't go.*

Response: There are approved management plans for all Arizona Wilderness Areas within the planning area, except the Trigo Mountains Wilderness. These plans address public access and permitting for access to these areas.

Public Concern 2: Study Areas

Comment 1095: *We reiterate our position regarding the Utah Settlement Agreement. We absolutely believe that the Federal Land Policy and Management Act (FLPMA - sections 201 & 202) provides the authority to BLM to inventory and identify lands of wilderness character, to establish Wilderness Study Areas, and to apply management conditions that will ensure non-*

impairment of that wilderness character through the life of Resource Management Plans (RMP). We expect that legal review of the Utah Settlement Agreement will inevitably reestablish the direction provided by HB 6310-1. On August 8th 2005, US District Judge Dee Benson lifted his court ordered approval on the April 11th 2003 Utah settlement case that prohibited BLM from creating new Wilderness Study Areas (WSAs). This increases the likelihood that this settlement could be reversed in the near future. If there is any change in the settlement, these areas could soon become available for full wilderness consideration.

Comment 240: *We do not need any more wilderness study areas. This fall I had the chance to be near Kanab Creek Wilderness, Saddle Mountain Wilderness, and the Eagletail wilderness, and I did not see one single person having any solitude out there. The only people I saw were hunters. We have, BLM manages 47 wilderness areas, 1.4 million acres. I don't know how many million acres we need to solitude in. I just think we got enough.*

Response: BLM no longer has the authority to establish Wilderness Study Areas. As stated in BLM's October 23, 2003, IM No. 2003-275 – Change 1: "In Utah v Norton, the State of Utah, Utah School and Institutional Trust Land Administration, and the Utah Association of Counties filed suit challenging the authority of the BLM to conduct wilderness inventories after completion of the Section 603 identification, study, and recommendation processes. The Department of Interior and the plaintiffs agreed to a settlement in April 2003. The settlement acknowledges: (1) that the BLM's authority to conduct wilderness reviews, including the establishment of new WSAs, expired no later than October 21, 1993, with the submission of the wilderness suitability recommendations to Congress pursuant to Section 603 of the FLPMA; and (2) that the BLM is without authority to establish new WSAs. The settlement did not, however, diminish the BLM's authority under Section 201 of FLPMA to inventory public land resources and other values, including characteristics associated with the concept of wilderness, and to consider such information during land use planning." There are no Wilderness Study Areas within the YFO planning area, and no Wilderness Study Areas can be established through this RMP process. YFO evaluated lands with wilderness characteristics in the DRMP/DEIS and PRMP/FEIS.

3. Areas of Critical Environmental Concern (ACECs)

Public Concern 1: General

Comment 1131 (Center for Biological Diversity et al.): *All seven areas identified as ACECs by the Draft Resource Management Plan (DRMP) and Environmental Impact Statement (DEIS) merit designation. All of these ACECs should be withdrawn from any further mineral development. They are areas of critical environmental concern and multiple use is not appropriate. They are designated for specific purposes. Similarly, target shooting should be prohibited in these areas as this will provide greater safety for the public. Target shooting is much more appropriately done in designated shooting ranges. Vehicles in ACECs should be limited to designated routes, rather than existing inventoried routes.*

Response: YFO re-evaluated management actions that would apply to ACECs based on public comment. Portions of the Big Marias, Dripping Springs, and Sears Point ACECs are proposed

for mineral withdrawal under the Proposed Plan. Inventoried routes within proposed ACECs will be designated as open, limited, or closed for specific types of uses at the earliest possible opportunity, either through Travel Management Plans or ACEC Management Plans. Please refer to Appendix 2-A for evaluations of the Proposed Plan management strategy for ACEC proposals.

Public Concern 2: Laws and Policies

Comment 1128 (Center for Biological Diversity et al.): *BLM failed to meet its obligations under FLPMA by not prioritizing the protection and designation of Areas of Critical Environmental Concern (ACECs) in the DRMP/DEIS. The Federal Land Policy and Management Act (FLPMA) obligates the BLM to "give priority to the designation and protection of areas of critical environmental concern [ACECs]" when preparing land use plans. 43 U.S.C. §1712(c)(3). ACECs are areas "where special management is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes." 43 U.S.C. § 1702(a).*

Comment 1129 (Center for Biological Diversity et al.): *BLM's ACEC Manual (1613) provides additional detail on the criteria to be considered in ACEC designation, as discussed in the applicable regulations, as well. See, Manual 1613, Section .1 (Characteristics of ACECs); 43 C.F.R. § 8200. An area must possess relevance (such that it has significant value(s) in historic, cultural or scenic values, fish & wildlife resources, other natural systems/processes, or natural hazards) and importance (such that it has special significance and distinctiveness by being more than locally significant or especially rare, fragile or vulnerable). In addition, the area must require special management attention to protect the relevant and important values (where current management is not sufficient to protect these values or where the needed management action is considered unusual or unique), which is addressed in special protective management prescriptions. For potential ACECs, management prescriptions are to be "fully developed" in the RMP. Manual 1613, Section .22 (Develop Management Prescriptions for Potential ACECs).*

The DRMP/DEIS for the Yuma Field Office does not comply with (and does not adequately address) BLM's obligations with respect to designation of new ACECs. In Appendix 2-A, the DRMP/DEIS assessed expansion of the two existing ACECs (Big Marias and Sears Point (formerly Gila River Cultural Area)) and five proposed ACECs (Dripping Springs, Gila River Terraces and Trails, Limitrophe, Palomas Plain and Walter's Camp). All seven were found to meet BLM's relevance and importance criteria, including acknowledgments that the areas have values that render them "fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change." Nonetheless, the preferred alternative proposes maintaining the existing Big Marias ACEC at its current size, expanding the existing Sears Point ACEC, and adding the proposed Dripping Springs ACEC. As a result, while 44,700 acres are protected through ACEC designation, an additional 583,000 acres of relevant, important and vulnerable values are left unprotected. See, DRMP/DEIS, pp. 2-15 – 2- 22; Appendix 2-A.

Response: The values for which ACECs are designated are considered the highest and best use for those lands, and protection of those values would take precedence over multiple uses. An ACEC Evaluation Report can be found in Appendix 2-A which clarifies special management attention needed for each area proposed as an ACEC under the Proposed Plan. Appendix 2-A

also describes other management prescriptions which would provide adequate resource protection for areas not proposed as ACECs in the Proposed Plan.

Public Concern 3: Natural Resources

Subconcern: Wildlife Management

Comment 1190 (Arizona Desert Bighorn Sheep Society): *We cannot support the formation of any Areas of Critical Environmental Concern (ACECs) because the designation appears to present more of a threat than a benefit to wildlife conservation and hunting opportunity; even those that are represented as being for the benefit and protection of bighorn sheep. Wild sheep populations require more active care and attention than this designation affords and protecting 'natural systems' could present unintentional consequences to the area's wildlife.*

Response: BLM will continuously coordinate with AGFD for wildlife management inside designated ACECs and throughout the planning area (see section 5.3 of the PRMP/FEIS).

Public Concern 4: Cultural Resources

Comment 519: *An additional benefit of ACEC designations is the likelihood that cultural resources will be better preserved. The planning area definitely encompasses a large swath of the region that once was home to the Patayan people. Archaeologists have conducted only limited surveys and excavation in the area, meaning that without cautious management, resources are at potential risk of being lost to science. Many of the remnants and features left by the Patayan are subtle, increasing the chances for their unwitting destruction by even well-intentioned land users.*

Response: YFO agrees that protection of cultural resources in the planning area is important, and that the ACEC designation is a good tool for achieving increased protection of important cultural sites. The Proposed Plan would continue the Big Marias ACEC, expand the Sears Point ACEC, and establish the Dripping Springs ACEC. These three ACECs have relevant and important cultural resource values, and the ACEC designation would allow the BLM to provide special management attention to protect significant cultural resources in these three areas.

Comment 1415 (Quechan Tribe): *The Tribe strongly objects to the allowance of Off-Highway Vehicle (OHV) access in designated ACEC areas. BLM has limited resources to monitor OHV users and to restrict OHV use to designated trials. The Tribe has previously informed BLM of damage to cultural sites from OHV use on BLM lands, and BLM often responds that it has limited resources to monitor the affected sites. Given BLM's limited enforcement resources, opening ACEC areas to any OHV use is likely to result in further destruction of cultural resources. BLM states that it will 'implement protection measures to stop, limit, or repair damage to cultural resources sites.' DRMP, at p. 2 14. However, the DRMP does not explain whether or how BLM will obtain adequate funding to increase its monitoring and enforcement presence on BLM lands. Unless there is an adequate monitoring and enforcement presence (which is likely not possible), allowing even 'limited' OHV use in ACEC areas will be disastrous for cultural resources. The Tribe requests BLM to prohibit OHV use on all ACEC lands that*

contain cultural resources.

Due to BLM's limited monitoring and enforcement presence, the Tribe is also concerned with other proposed uses for ACEC areas such as equestrian trails, overnight camping, special recreation permits, and commercial tour operations. How will BLM ensure that these uses do not interfere with or result in damage to cultural resources? Given BLM's existing inability to adequately monitor and enforce protected sites, the Tribe objects to promoting increased visitation and access to areas with cultural resources of significance to the Tribe. The Tribe requests that BLM significantly revise its ACEC proposals to manage those areas in a way that will ensure long-term preservation and protection of the affected resources.

Response: The Proposed Plan in the PRMP/FEIS has been revised to include Closed OHV Management Areas in the Dripping Springs and Sears Point ACECs to protect cultural resources from OHV damage. In addition, the Proposed Plan includes a Closed OHV Management Area in the Muggins Mountains SCRMA, which would reduce damages to this important landscape. In addition, routes within ACECs will be systematically evaluated during the upcoming travel management planning process for the La Posa, Gila River Valley, and Ehrenberg-Cibola TMAs. For these plans, all inventoried routes in ACECs will be evaluated and then designated as open, limited, or closed. We would greatly appreciate the Tribe's input into these Travel Management Plans, and encourage your participation.

Section 2.3.5 of the PRMP/FEIS includes several protective measures that are intended to reduce impacts from increasing public visitation to ACECs. The section proposes several restrictions on public use of these areas, including Management Actions that limit hiking, vehicle parking, overnight camping, and firewood collection. The Management Actions also attempt to reduce visitor impacts by increasing interpretation ,establishing an onsite visitor host for continuous monitoring, and withdrawing portions of the ACECs from mineral entry. Under all alternatives, additional planning efforts (i.e., ACEC plans or Cultural Resources Management Plans) are prescribed for each ACEC in the Proposed Plan. These plans would attempt to balance increasing public visitation with resource protection needs, and would be developed in coordination with all interested Native American tribes.

Public Concern 5: Transportation and Access

Comment 1343 (AGFD): *Page 2-17, Section 2.3.5 B Management Actions, 6th bullet, RMP Statement-Discourage new routes…: We recommend changing to: Prohibit new routes…*

Response: Section 2.3.4, Management Actions Common to All ACECs, in the PRMP/FEIS has been revised to read: "Prohibit new routes within the proposed ACEC except as needed to manage and interpret resources or as required by law, such as access to valid mining claims or private property."

Public Concern 6: Recreation

Comment 904: *BLM must not prohibit overnight camping, firewood collection, nor recreational shooting in ACEC's...There is not sufficient rationale for these provisions.*

Comment 853: *The following actions are overly restrictive and should be removed from the plan. Please justify the need for these requirements. Dripping Springs ACEC (page 2-17). Management actions: Overnight camping would not be permitted. Limit public use to the single motorized route within the 640-acre area to hiking only. Administrative actions: Require visitors to stay on the designated interpretive hiking trail in the vicinity of the spring. Prohibit dead, downed, and detached firewood collection inside the proposed ACEC. Prohibit recreational shooting, except for legal hunting, within the proposed ACEC boundaries.*

Comment 854: *The following actions are overly restrictive and should be removed from the plan. Please justify the need for these requirements. Sears Point (Gila River Cultural Area) ACEC (page 2-20). Management actions: Throughout the life of the plan, determine public demand for overnight camping opportunities within the ACEC. If overnight camping opportunities should be provided, designate a campground within the proposed ACEC expansion area at a reasonable distance away from sensitive resources. Limit overnight camping within the entire ACEC to this campground upon designation. Prohibit collection of dead, downed, and detached firewood and of vegetative materials inside the ACEC. Prohibit recreational shooting except for legal hunting within ACEC boundaries. Administrative actions: Require visitors to stay on the designated interpretive hiking trail in the interpretive area once the trail is constructed.*

Response: The guidance for ACEC management is included in FLPMA and states that Federal agencies are directed to protect and conserve ecosystems in need of "special management attention" by designating them as "areas of critical environmental concern" in their land use planning process (FLPMA 43 U.S.C. § 1702 [a]). By definition, proposed ACECs require special management (43 CFR 1601.0-5[a]) to "protect the area and prevent irreparable damage to resources or natural systems."

The special management prescriptions for the protection of relevant and important resource values within the Big Marias, Dripping Springs, and Sears Point ACECs have been revised in this PRMP/FEIS. These revisions include reducing the proposed overnight camping restrictions by approximately 35,800 acres, reducing proposed firewood collection restrictions by approximately 26,300 acres, and removing all recreational shooting restrictions from ACEC proposals. The revised special management prescriptions for the three ACECs are outlined in Section 2.3.4, Map 2-1e-1, Map 2-1e-2, and Map 2-1e-3.

Comment 1035 (YVRGC): *With regard to ACECs, we believe that any ACEC designation that further restricts hunting, camping, firewood collection, OHV use, equestrian use, or any other public recreation that is not already restricted, is unnecessary. In summary, the Club would support the No Action Alternative or Alternative A for ACECs.*

Response: In response to public comments, the YFO interdisciplinary team made adjustments to Management Actions in Section 2.3.4 of the Proposed Plan related to equestrian use, OHV closures, and firewood collection in ACECs.

4. Back Country Byways

Public Concern 1: General

Comment 850: *How does YFO plan to manage the dramatic increase in visitors? How does YFO plan to fund any needed new equipment, personnel, etc? Information should be included in the RMP.*

Comment 1327 (AGFD): *Specific research on impacts to desert bighorn sheep and mule deer from BCB designations and/or improvements to BCB does not exist. The Department feels it is BLM's responsibility under NEPA to collect this type of information and use it in the analysis of potential impacts before proceeding with the nomination of BCBs.*

Comment 1425 (Quechan Tribe): *Page 2-12 of the DRMP contains a list of issues that must be addressed in byway management plans. This list improperly fails to mention protection of cultural resources. Given the extensive use of OHVs on the national byway system, it is crucial that BLM survey the byways for the presence of cultural resources and prohibit access to areas that contain sensitive resources. At minimum, the byway management plans should contain provisions of mitigation of impacts to affected cultural resources. If use of a byway could result in damage to cultural resources, BLM should consider closing the byway until an adequate treatment plan can be developed and implemented for the affected cultural resources.*

Comment 851: *On page 2-13 under administrative actions it states, "Develop maps and brochures of the byways" and on page 2-13 under management actions it states, "If visitor use is adversely impacting wildlife or other resources, byway use may be limited through issuing permits or other means." Through marketing and advertising use is going to increase, then BLM will have to say they have been forced to close the road. Why don't we just leave it like it is and then it won't have to be closed due to overuse? Please do not include any backcountry byways in the RMP.*

Comment 423: *Do not designate Back Country Byways. BCBYs contradict desired future conditions for undeveloped recreation.*

Comment 493: *Remove the [backcountry byway] that bisects the Dripping Springs ACEC.*

Response: The Proposed Plan of the PRMP/FEIS only proposes to nominate and designate the Plomosa Road and Agua Caliente Road as National Back Country Byways, which are both maintained roads usable by two-wheel drive vehicles. These byways are included in the PRMP/FEIS to connect to proposals from the BLM Lake Havasu and Lower Sonoran Field Offices. These two field offices would serve as the lead agencies in the development of the two byway management plans, which would address mitigation measures to ensure that the byways remain compatible with the BLM's multiple-use mission. The two byway management plans must be implemented in compliance with Section 106 of the NHPA and BLM policies outlined in IM AZ-2006-043, Section 106 Compliance for Designating Off-Highway Vehicle Routes and Areas in Land Use Plans and IM WO-2007-030, Clarification of Cultural Resource Considerations for Off-Highway Vehicle (OHV) Designation and Travel Management.

The Proposed Plan does not propose to nominate and designate the Gold Nugget, Brenda, Clanton Hills, Red Cloud Road, or Red Raven routes as National Back Country Byways. Because these 199 miles of routes would not be managed as National Back Country Byways, no additional impacts to wildlife, including desert bighorn sheep and mule deer, cultural resources, soils, vegetation, or wilderness resources would occur from increased motorized use through byway marketing efforts. In addition, no byways in the planning area would be located within the proposed Yuma East Undeveloped SRMA or Dripping Springs ACEC.

Comment 1189 (Arizona Desert Bighorn Sheep Society): *We thank you for removing the Red Cloud backcountry byway route from your preferred alternative but remain concerned with the proposed Gold Nugget, Brenda and Plomosa backcountry byways because they traverse occupied bighorn sheep habitat and would encourage increased human use and disturbance. We can understand the need and benefit for the Plomosa route because it is paved but strongly object to the Gold Nugget and Brenda byways because they are dirt and offer limited tourism benefits. Please leave these dirt roads in place but do not call unnecessary attention to them by designating them as a byway. We are especially concerned with the southern Gold Nugget byway south of I-10 to the NKWR boundary because of its closer proximity to occupied bighorn habitat. We also fail to understand the reasoning to establish the Gold Nugget Segment 2 portion as a type IV byway limiting it to only quads and motorcycles. This limitation appears to beg more OHV abuse. At a minimum the byway type should be changed to a class III so as to not negatively impact hunting access and discriminate against hunting opportunities.*

Response: The Brenda and Gold Nugget Back Country Byways have been removed from the Proposed Plan due to public and agency concern for wildlife habitat and public safety. However the Plomosa Back Country Byway would remain in the Proposed Plan, which would connect with the byway proposed by the Lake Havasu Field Office.

Comment 1463 (YPG): *Under Alternative B, the Red Cloud back country by-way crosses YPG at the southwest boundary (see Map 2-1b). If the proposed by-way road(s) are not already accessible to the public, this will create an encroachment situation on YPG.*

Response: The Red Cloud Back Country Byway was not included in the Preferred Alternative of the DRMP/DEIS or the Proposed Plan of the PRMP/FEIS. YFO will continue coordination efforts with YPG for future projects.

Comment 336: *Not to advertise any roads/Byways. Find them on your own.*

Response: The BLM typically publishes and distributes OHV Access Guides identifying designated routes within individual field offices. These guides inform public land visitors of the appropriate routes to drive on and can prevent the public from becoming lost in parts of the undeveloped desert. The Proposed Plan proposes to nominate and designate the Plomosa Road and Agua Caliente National Back Country Byways. However, these byway proposals were developed to connect to proposals from the BLM Lake Havasu and Lower Sonoran Field Offices, who would serve as the lead agencies which would plan for and market the byways within this planning area.

Public Concern 2: Clarity of Information

Comment 1339 (AGFD): *Page 2-11, Section 2.3.3, RMP Statement-None: The Department understands that there is a specific process in nominating and designating backcountry byways. This process should be explained in the RMP along with what part of the process, if any, will be completed or conducted in the RMP.*

Response: The PRMP/FEIS identifies roads that would be available in the future for BLM and interested partners to nominate and designate as part of the National Back Country Byway Program. While this PRMP/FIES would not immediately designate any Back Country Byways within the planning area, the Desired Future Conditions, Management Actions, and Administrative Actions identified for potential byways would preclude the need to develop an RMP amendment for such a designation in the future. The nomination and designation process for future Back Country Byways would be carried out according to the BLM Byways Handbook, H-8357-1, and would be subject to additional NEPA processes.

Public Concern 3: Wildlife Management

Comment 1340 (AGFD): *Page 2-12, Section 2.3.4 Desired Future Conditions, RMP Statement-None: The department recommends adding a DFC that states byway plans will strive to minimize impacts to wildlife and will provide appropriate wildlife viewing opportunities.*

Response: The Desired Future Condition statement recommended in your comment has been added to Section 2.3.3 of the PRMP/FEIS.

Public Concern 4: Protection of Public Access

Comment 1328 (AGFD): *Under the preferred alternative BLM is also proposing to restrict a portion of the Gold Nugget BCB to quads and bikes. This road provides important hunting access to remote areas including the New Water Mountains Wilderness. Many people access this area using 4-wheel drive jeeps and pickups. The proposed restrictions would deny many people access to currently used hunting areas. Again, the disclosure and analysis of this potential impact are not in the EIS.*

Response: The types (Types I – IV) of proposed byways included in the DRMP/DEIS and PRMP/FEIS identify the type of vehicle the BLM recommends for the public's safe navigation of individual byways and byway segments. Identified byway types do not propose to restrict the public's use of certain types of vehicles on the routes, which is why no impacts to public access were disclosed in Chapter 4 of the DRMP/DEIS. While the Gold Nugget Back Country Byway is no longer included in the Proposed Plan of the PRMP/FEIS, the entire route is now proposed as a Type III byway under Alternatives B and C.

H. SOCIAL AND ECONOMICS

1. Border Related Issues

Public Concern 1: Adequacy of Analysis

Comment 1148 (Center for Biological Diversity et al.): *Though the U.S./Mexico border is not strictly within the lands of the Yuma planning area, the impacts of border enforcement and infrastructure are. The DRMP/DEIS does not address this issue, despite the substantial impacts of this land use. Each of the multiple uses assessed in the RMP must be assessed in context of the border situation. Infrastructure projects must be considered in the cumulative impacts section of the final RMP.*

Response: The Limitrophe area of the lower Colorado River forms an International Boundary with Mexico. Portions of the Limitrophe are public land. Impacts of the border are considered in cumulative impacts.

Public Concern 2: Health and Safety

Comment 1049 (Yavapai-Apache Nation): *We have concerns for the safety and health of children who are at risk because of decisions made by others to cross the border illegally. We are aware of the tragic deaths of children in the deep desert through no fault of their own and it is our hope the BLM will take the steps necessary to mitigate these unfortunate incidents to the extent you are able for the sake of these innocent children.*

Response: The Limitrophe ACEC and CMA and public health and safety sections of the document address border safety.

5.6 LIST OF PREPARERS

Table 5-1
List of Preparers

Name	Job Title	Years of Expertise	Primary Responsibility
Yuma Field Office BLM			
Alexander, Bill	Lead Park Ranger	8	Recreation, Travel Management
Allen, Steve	Geologist	13	Minerals, Paleontological Resources
Arnold, Sandra	Archaeologist	7	Project Management, Cultural Resources, Paleontological Resources, Special Designations
Bailey, Micki	Planning & Environmental Coordinator	16	RMP Team Lead, Socioeconomics, Environmental Justice
Behrens, Mike	Fire Ecologist		Wildland Fire
Briceno, Venessa	Realty Specialist	2	Lands and Realty

Table 5-1
List of Preparers (cont.)

Name	Job Title	Years of Expertise	Primary Responsibility
Yuma Field Office BLM (cont.)			
Conde, Ruben	Colorado River District Law Enforcement Ranger		Vegetation, Travel Management
Cook, Lori	Public Affairs Specialist	9	Public Outreach
Curtis, Aaron	Outdoor Recreation Planner	4	Project Management, Recreation, Visual Resource Management, Travel Management, Wilderness Characteristics, Special Designations
Daniels, Dave	Planning & Environmental Coordinator	27	Wildland Fire, Travel Management, Wilderness Characteristics, RMP Team Lead
Dorsey, Keith	Law Enforcement Ranger	18	Vegetation, Travel Management
Emery, Ryan	Environmental Planner	1	Project Management
Fusilier, Steve	Lands & Minerals Team Lead	8	Lands and Realty, Public Health and Safety, Socioeconomics, Environmental Justice
Grace, Jim	GIS Specialist	6	Maps and Tables
Green, Jennifer	Natural Resource Specialist	6	Vegetation, Soil, Air, and Water
Heick, Becky	District Manager	6	Management Oversight
Holzer, Candy	Land Law Examiner	17	Lands and Realty
Lopez, Arturo	Realty Specialist	4	Lands and Realty
Lowans, Mark	Assistant Field Manager	18	Recreation
Morfin, Ron	Recreation and Wilderness Team Lead	18	Special Designations, Recreation, Wilderness Characteristics, Travel Management
Mueller, Francisca	Realty Specialist	7	Lands and Realty
Nicoulin, Tim	Law Enforcement Ranger	5	Travel Management
Oyler, Roger	Senior Rangeland Management Specialist	31	Wild Horse & Burros, Livestock Grazing, Soil, Air, and Water
Plis, Matt	Geologist	24	Minerals and Paleontological
Reichhardt, Karen	Resources Team Lead	28	Project Management, Special Designations, Vegetation,
Repass, David	Fire Biologist	4	Wildland Fire, Special Status Species
Riley, Kate	Planning & Environmental Coordinator	2	Project Management, Special Designations, Travel Management, Recreation, Visual Resource Management
Rittenhouse, Bruce	Assistant Field Manager	18	Management Oversight
Rowell, Gary	Resource Protection Specialist	8	Minerals
Shoaff, James T.	Field Manager	10	Management Oversight
Tisino, Lester	Fire Management Officer	35	Wildland Fire
Wong, Fred	Wildlife Biologist	14	Fish and Wildlife, Special Status Species
Young, Jeff	Wildlife Biologist	14	Fish and Wildlife, Special Status Species
Zale, Tom	Assistant Field Manager	26	Management Oversight
Ahuja, Suraj	Air Quality Specialist	21	Air Resources
RECON Environmental, Inc.			
Bartlett, Susan	Archaeologist		Comment Analysis
Benn, Candie	Client Care Program Manager	21	Client Liaison
Blocker, Eija	Production Specialist	19	Editing, Formatting, and Production of Deliverables

Table 5-1
List of Preparers (cont.)

Name	Job Title	Years of Expertise	Primary Responsibility
RECON Environmental (cont.)			
Bohac, Sean	GIS Analyst	7	GIS Analysis, Map Production, Comment Analysis/Access Database
Carter, Rebecca	Project Manager, Sonoran Institute	12	Socioeconomics
Fromer, Paul	Environmental and Conservation Planner	27	Principal in Charge
Funicelli, Carianne	Vegetation Ecologist	9	Writer/Editor, Vegetation Management, Comment Analysis/Access Database
Gottfredson, David	Environmental Analyst	19	Writer/Editor; Soil, Air, and Water Resources
Gross, Loretta	Production Manager		Production of Deliverables
Henley, Colby	Wildlife Biologist		Comment Analysis
Hull, Warren L. "Skip"	Director of Economic Analysis, CIC Research, Inc.	31	Economic Analysis
Kubota, Gordon	President, CIC Research, Inc.		Economic Analysis
McDermott, Frank	GIS Coordinator	10	GIS and Mapping Oversight, Map Editing and Production
Morales, Susy	Wildlife Biologist	13	Writer/Editor, Assistant Project Manager, Comment Analysis, Editing
Simmons, Gregg	Manager, Simmons Environmental and Natural Resource Consulting, L.L.C.	32	Environmental Planner, Workshop Facilitator, and Technical Advisor
Taylor, Drew	GIS Analyst	4	GIS and Graphic Support
Underwood, Jackson	Archaeologist	23	Cultural Resources
Woods, Lori Jones	Environmental Planner	28	Project Manager
Arizona Game and Fish Department			
Engel, Russ	Habitat Program Manager	26	Habitat Evaluation
Knowles, Bill	Habitat Specialist	30	Habitat Evaluation
Maxim Technologies			
Gifford, Fred	GIS/Geospatial Data Specialist	21	Maps
Melton, Jim	Project Manager	24	Resource Management/Planning Specialist
Sengebush, Rob	Physical Resources Coordinator	20	Minerals, Paleontological
Stark, Judd	Soil Scientist	8	Soil, Livestock Grazing
Tetra Tech, Inc.			
Boltz, Jackie	Public Outreach Specialist	13	Public Outreach
Curtis, Jan	Water Resources Specialist	19	Water
Dadswell, Matt	Socioeconomics	13	Socioeconomics
Eisenfeld, Mike	Assistant Project Manager	11	Management/Planning Specialist, Recreation, Energy Development
Pious, Malcom	Biological Resources Coordinator	18	Fish and Wildlife, Special Status Species, Vegetation
Roxlau, Katherine	Cultural Resource Specialist	18	Cultural Resources, Paleontological Resources

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YU-0166	**Comment#**	**Category**

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YU-0181	**Comment#**	**Category**

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YU-0200	**Comment#**	**Category**
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YU-0214	**Comment#**	**Category**
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YU-0215	Comment#	Category
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YU-0216	**Comment#**	**Category**
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YU-0220	**Comment#**	**Category**
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YU-0222	**Comment#**	**Category**
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YU-0223	**Comment#**	**Category**
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YU-0224	**Comment#**	**Category**
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YU-0225	**Comment#**	**Category**
	702	Access and Travel Management
YU-0226	**Comment#**	**Category**
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YU-0227	**Comment#**	**Category**
	704	Access and Travel Management
YU-0228	**Comment#**	**Category**
	705	Access and Travel Management
YU-0229	**Comment#**	**Category**
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	710	Recreation Management
	711	Access and Travel Management
	712	Alternatives

YU-0231	Comment#	Category
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	719	Natural Resources Management
	720	Natural Resources Management
	721	Natural Resources Management

YU-0233	Comment#	Category
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	723	Alternatives
	724	Lands and Realty Management
	725	Special Designations
	726	Natural Resources Management
	727	Natural Resources Management
	728	Natural Resources Management
	729	Natural Resources Management
	730	Natural Resources Management
	731	Alternatives
	732	Alternatives
	733	Alternatives
	734	Natural Resources Management
	735	Alternatives
	736	Alternatives
	737	Alternatives
	738	Alternatives
	739	Alternatives
	740	Alternatives
	1412	Natural Resources Management

YU-0234	Comment#	Category
	741	Natural Resources Management

YU-0235	Comment#	Category
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	743	Recreation Management
	744	Access and Travel Management

YU-0236	Comment#	Category
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	746	Natural Resources Management

YU-0237	Comment#	Category

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YU-0242	**Comment#**	**Category**
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YU-0243	**Comment#**	**Category**
	753	Access and Travel Management
YU-0244	**Comment#**	**Category**
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	756	Natural Resources Management
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	763	Planning Processes
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	766	Alternatives
	767	Planning Processes
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YU-0248	**Comment#**	**Category**
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YU-0249	**Comment#**	**Category**
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YU-0250	**Comment#**	**Category**
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YU-0256	**Comment#**	**Category**
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YU-0258	**Comment#**	**Category**
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YU-0263	**Comment#**	**Category**
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YU-0264	**Comment#**	**Category**
	797	Access and Travel Management

	798	Alternatives
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YU-0280	**Comment#**	**Category**
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YU-0285	**Comment#**	**Category**
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	852	Alternatives
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	854	Special Designations
	855	Access and Travel Management
	856	Planning Processes

	857	Access and Travel Management
	858	Alternatives
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	862	Alternatives
	863	Planning Processes
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YU-0287	**Comment#**	**Category**
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YU-0288	**Comment#**	**Category**
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YU-0289	**Comment#**	**Category**
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YU-0290	**Comment#**	**Category**
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YU-0291	**Comment#**	**Category**
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	873	Access and Travel Management
YU-0292	**Comment#**	**Category**
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	875	Access and Travel Management
YU-0293	**Comment#**	**Category**
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	886	Recreation Management
	888	Access and Travel Management
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	891	Access and Travel Management
YU-0295	**Comment#**	**Category**
	892	Alternatives
YU-0296	**Comment#**	**Category**
	893	Alternatives
YU-0297	**Comment#**	**Category**
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	895	Special Designations
	896	Access and Travel Management
	897	Access and Travel Management
	898	Access and Travel Management
	899	Lands and Realty Management
	900	Planning Processes
	901	Planning Processes
	902	Access and Travel Management
	903	Access and Travel Management
	904	Special Designations
	905	Recreation Management
	906	Special Designations
	907	Planning Processes
	908	Planning Processes
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YU-0300	**Comment#**	**Category**
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YU-0301	**Comment#**	**Category**
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YU-0304	**Comment#**	**Category**
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YU-0305	Comment#	Category
	918	Natural Resources Management

YU-0306	Comment#	Category
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	921	Recreation Management
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	923	Access and Travel Management
	924	Access and Travel Management
	925	Access and Travel Management
	926	Lands and Realty Management
	927	Lands and Realty Management
	928	Lands and Realty Management
	929	Lands and Realty Management
	930	Lands and Realty Management
	931	Natural Resources Management
	932	Alternatives
	933	Natural Resources Management

YU-0307	Comment#	Category
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YU-0308	Comment#	Category
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YU-0309	Comment#	Category
	936	Natural Resources Management

YU-0310	Comment#	Category
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YU-0311	Comment#	Category
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	945	Natural Resources Management

YU-0312	Comment#	Category
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	947	Planning Processes
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	949	Recreation Management
	950	Access and Travel Management

	951	Access and Travel Management
	952	Access and Travel Management
	953	Planning Processes
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YU-0314	**Comment#**	**Category**
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	956	Access and Travel Management
YU-0315	**Comment#**	**Category**
	957	Access and Travel Management
	958	Alternatives
YU-0316	**Comment#**	**Category**
	959	Access and Travel Management
	960	Alternatives
YU-0317	**Comment#**	**Category**
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YU-0319	**Comment#**	**Category**
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	968	Recreation Management
YU-0320	**Comment#**	**Category**
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	970	Alternatives
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YU-0321	**Comment#**	**Category**
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	973	Recreation Management
YU-0322	**Comment#**	**Category**
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	977	Recreation Management
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	979	Access and Travel Management
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YU-0326	**Comment#**	**Category**
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YU-0328	**Comment#**	**Category**
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	984	Access and Travel Management
YU-0329	**Comment#**	**Category**
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YU-0330	**Comment#**	**Category**
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	1204	Access and Travel Management
YU-0331	**Comment#**	**Category**
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	1206	Access and Travel Management
YU-0332	**Comment#**	**Category**
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	1208	Access and Travel Management
YU-0333	**Comment#**	**Category**
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	1210	Alternatives
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	1212	Access and Travel Management
YU-0335	**Comment#**	**Category**
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	1214	Access and Travel Management
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	1218	Access and Travel Management
YU-0338	**Comment#**	**Category**
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	1220	Alternatives
YU-0339	**Comment#**	**Category**

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	1222	Access and Travel Management
YU-0340	**Comment#**	**Category**
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YU-0342	**Comment#**	**Category**
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YU-0343	**Comment#**	**Category**
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	1230	Alternatives
YU-0344	**Comment#**	**Category**
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	1232	Access and Travel Management
YU-0345	**Comment#**	**Category**
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	1234	Access and Travel Management
YU-0346	**Comment#**	**Category**
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	1236	Alternatives
	1237	Access and Travel Management
YU-0347	**Comment#**	**Category**
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	990	Natural Resources Management
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	992	Alternatives
	993	Planning Processes
	994	Natural Resources Management
	995	Alternatives
	996	Alternatives
	997	Natural Resources Management
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	1000	Natural Resources Management

	1001	Alternatives
	1002	Alternatives
	1003	Alternatives
YU-0348	**Comment#**	**Category**
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	1005	Natural Resources Management
	1006	Access and Travel Management
	1007	Special Designations
	1008	Alternatives
YU-0349	**Comment#**	**Category**
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	1010	Natural Resources Management
	1011	Natural Resources Management
	1012	Alternatives
	1013	Alternatives
YU-0350	**Comment#**	**Category**
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	1239	Natural Resources Management
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YU-0351	**Comment#**	**Category**
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YU-0353	**Comment#**	**Category**
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YU-0355	**Comment#**	**Category**
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YU-0356	**Comment#**	**Category**
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YU-0357	**Comment#**	**Category**
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YU-0358	**Comment#**	**Category**

	1254	Natural Resources Management
	1255	Natural Resources Management

YU-0359	Comment#	Category
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	1027	Natural Resources Management
	1028	Natural Resources Management
	1029	Natural Resources Management
	1030	Natural Resources Management
	1031	Natural Resources Management
	1402	Plan Specific Codes
	1403	Plan Specific Codes
	1404	Plan Specific Codes
	1405	Plan Specific Codes
	1406	Plan Specific Codes
	1407	Plan Specific Codes
	1408	Plan Specific Codes
	1409	Plan Specific Codes

YU-0360	Comment#	Category
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	1033	Natural Resources Management
	1034	Natural Resources Management
	1035	Special Designations
	1036	Access and Travel Management
	1037	Alternatives
	1038	Special Designations
	1039	Recreation Management
	1040	Natural Resources Management
	1041	Planning Processes
	1042	Planning Processes
	1043	Lands and Realty Management

	1044	Planning Processes
YU-0361	**Comment#**	**Category**
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	1257	Planning Processes
	1258	Plan Specific Codes
	1259	Plan Specific Codes
	1260	Plan Specific Codes
	1261	Plan Specific Codes
	1262	Plan Specific Codes
	1263	Plan Specific Codes
	1264	Plan Specific Codes
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	1266	Plan Specific Codes
	1267	Plan Specific Codes
	1268	Plan Specific Codes
	1269	Plan Specific Codes
YU-0362	**Comment#**	**Category**
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	1048	Natural Resources Management
	1049	Social and Economics
	1050	Recreation Management
	1051	Social and Economics
	1052	Natural Resources Management
YU-0363	**Comment#**	**Category**
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YU-0364	**Comment#**	**Category**
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	1272	Natural Resources Management
YU-0365	**Comment#**	**Category**
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	1274	Natural Resources Management
	1275	Natural Resources Management
YU-0367	**Comment#**	**Category**
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YU-0369	**Comment#**	**Category**
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	1278	Natural Resources Management
	1279	Natural Resources Management
YU-0370	**Comment#**	**Category**

	1280	Natural Resources Management
	1281	Natural Resources Management
YU-0371	**Comment#**	**Category**
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	1283	Special Designations
	1284	Alternatives
YU-0372	**Comment#**	**Category**
	1285	Natural Resources Management
	1286	Natural Resources Management
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KUCERA	G. DONALD	THE ANZA TRAIL COALITION OF ARIZONA	YU-0052
LAFORD	ARMOND		YU-0345
LAMKIN	ROBIN		YU-0105
LAMPMAN	MARGIE		YU-0251
LANE	PATRICIA J.		YU-0282
LASH	CAL		YU-0011 YU-0015
LASH	CAL		YU-0011
LATHAM	AUDREY		YU-0317
LATHAM	RICHARD		YU-0318
LEAHY	SARA		YU-0140

LAST NAME	FIRST, MI	ORGANIZATION NAME	LETTER #
LEWIS	JEREMY		YU-0018
LEWIS	NANCY R.		YU-0146
LITTLE	JANET		YU-0409
LOCOCO	ANDREA	ANIMAL WELFARE INSTITUE	YU-0385
LOFTON	JOHN S.		YU-0109
LONG	BOB		YU-0180
LONG	ELYSE		YU-0180
LOVE	MARIGOLD		YU-0265
LOVRIEN	CLARK E.		YU-0430
LOVRIEN	REBA F.		YU-0430
LOWER	DEANNA L.		YU-0188
LOWER	ROBERT A.		YU-0189
LUCAS	ALLISON		YU-0208
LUFFY	WILLIAM	ARIZONA DESERT BIGHORN SHEEP SOCIETY	YU-0404
LUKASIEWICZ	MICHELLE		YU-0253
LYNCH	JANET		YU-0310
LYONS	MARLYN		YU-0116
LYONS	PATSY		YU-0117
MACADAM	ANN		YU-0356
MACDONALD	CINDY		YU-0359
MACKEN	GERALD		YU-0336
MACKEN	KATHLEEN		YU-0335
MADDOX	KIM		YU-0054
MANGERS	MIKE		YU-0425
MANGERS	RANEE		YU-0426
MANTZ (?)	LEE		YU-0078
MARQUEZ	MONICA	YAVAPAI-APACHE NATION	YU-0362
MARTIN	JEANNIE		YU-0328
MARTIN	JOHN		YU-0329
MARTIN	MARY		YU-0383
MARTINEZ	ANDREA		YU-0285
MARTINEZ	ANDREA		YU-0049 YU-0285

LAST NAME	FIRST, MI	ORGANIZATION NAME	LETTER #	
MARTINO	NANCI		YU-0313	
MCCLURE	JEAN		YU-0066	
MCCORMICK	H. JILL	COCOPAH INDIAN TRIBE	YU-0230	
MCCOY	ROBERT L.		YU-0056	
MCCURRY	APRIL		YU-0154	
MCGILL	RICHARD		YU-0182	
MCKEE	ROGER A.		YU-0236	
MCLAIN	KAREN		YU-0213	
MCNAMARA	ANNABETH		YU-0060	
MEARS	SHEILA		YU-0394	
MEISTER	CARY	YUMA AUDUBON SOCIETY	YU-0400	YU-0401
MICHALAK	MARIA		YU-0369	
MICHALS	CORY		YU-0271	
MICKLICK			YU-0088	
MILLER	ROBERT		YU-0174	
MILLER	ROBERT		YU-0075	
MINOR	LORANNA		YU-0029	
MORAN	JERRY		YU-0077	
MORGART	TERRY		YU-0001	
MORIN	CARLA		YU-0249	
MORIN	PATRICK		YU-0249	
MOTHERAL	DOROTHY		YU-0023	
MULLANE	SHARON		YU-0283	
MYERS	MARY		YU-0017	
NASIF	DR. MARCEL		YU-0025	
NASIF	MRS. MARCE		YU-0025	
NATION	ALICIA		YU-0132	
NEALY	KAYE	MORRISSET, SCHLOSSER, JOZWIAK & MCGAW (QUECHAN TRIBE)	YU-0376	
NELSON	PAT		YU-0235	
NICHOLS	H.R.		YU-0089	
NILES	GARY	TAMARACK LAGOON CORPORATION	YU-0004	YU-0063
NONE			YU-0019	

LAST NAME	FIRST, MI	ORGANIZATION NAME	LETTER #
NORMENT	BONNIE SUE		YU-0155
O'CONNOR	SHAWNA		YU-0201
ORR	EVELYN L.		YU-0113
ORR	JOHN W.		YU-0194
ORR	SCOTT		YU-0167
PADDOCK	MARGARET		YU-0263
PANCARO	BETTY		YU-0303
PARANT	VIRGINIE		YU-0380
PATTERSON	DANIEL R.	PUBLIC EMPLOYEES FOR ENVIRONMENTAL RESPONSIBILITY	YU-0055
PITT	JENNIFER	ENVIRONMENTAL DEFENSE	YU-0124
POLICK	JEFF		YU-0373
POLICK	MELISSA		YU-0373
PRICE	JEFF		YU-0065
PRINE	HEATHER		YU-0145
RANSEHOUSEN	BARABARA		YU-0163
RANSEHOUSEN	BARBARA	FAMILY MOTOR COACH ASSOCIATION FOUR-WHEELERS	YU-0050 YU-0163
RANSEHOUSEN	JIM		YU-0163
RASMUSSEN	RANDY	NATURAL TRAILS AND WATERS COALITION	YU-0401
RATCLIFF	REBECCA		YU-0136
RATHBUN	CLAUDIA		YU-0237
RATHBUN	ROBERT D.		YU-0238
RECCA	FRAN	AMERICAN TRAILHORSE ASSOCIATION - NEW JERSEY	YU-0139
REYNOLDS	DARWIN		YU-0344
REYNOLDS	JEANICE		YU-0342
RICKS	SANDRA		YU-0027
ROBERTS	JAN		YU-0021
ROBERTS	JENNY		YU-0020 YU-0264
ROETTO	PAUL		YU-0377
ROONEY	CATHY		YU-0258
RUSH	ERNEST E.		YU-0300
RUSH	L. SANDRA		YU-0299

LAST NAME	FIRST, MI	ORGANIZATION NAME	LETTER #	
RUSSELL	CAROL		YU-0219	
RUSSETT	D.		YU-0224	
RYBERG	ERIK	WESTERN WATERSHEDS PROJECT	YU-0400	
SAKTA	ALECS		YU-0013	YU-0252
SALAZAR	MELISSA JOY		YU-0141	
SAN DIEGO	JEANNE MARI		YU-0131	
SANDERS	AMANDA		YU-0158	
SANTOSTEFANO	LAURA		YU-0178	YU-0229
SAUNDERS-WHITE	CAROL		YU-0384	
SAWAY	STEVE	HUACHUCA HIKING CLUB	YU-0378	
SAWYER	VAL		YU-0266	
SCHNEIDER	GEORGE		YU-0322	
SCHUMANN	ELIZABETH		YU-0172	
SCHWENNESEN	ERIC		YU-0304	
SCRIBNER	JANICE		YU-0081	
SCRIBNER	JOE		YU-0032	YU-0081
SCRIBNER	JOE		YU-0081	
SEFSCIK	SUE		YU-0365	
SESAR	BETTY		YU-0291	
SESAR	STAN		YU-0292	
SHAVITZ	MARK		YU-0111	
SHIPLEY	ROY		YU-0026	
SHOVEA	RITA		YU-0199	
SHOVEA	SCOTT		YU-0199	
SHROUFE	DUANE	ARIZONA GAME AND FISH DEPARTMENT	YU-0405	
SIEMION	GIBNEY		YU-0061	
SIESS	JANOS		YU-0203	
SIMON-HELDT	SHERRY		YU-0206	
SINTOSTEPHANO	LAURA		YU-0229	
SIPES	CAROL		YU-0220	
SIPES	STEVE		YU-0220	
SLAGLE	DEIDRE		YU-0417	
SLAGLE	PETER		YU-0418	

LAST NAME	FIRST, MI	ORGANIZATION NAME	LETTER #
SMITH	KIMBERLY		YU-0254
SMITH	MARTHA		YU-0268
SMITH	PHILLIP R.	COLORADO RIVER INDIAN TRIBE	YU-0045
SOMERVILLE	THANE D.	MORRISSET, SCHLOSSER, JOZWIAK & MCGAW (QUECHAN TRIBE)	YU-0406
SORENSON	HELEN I.		YU-0193
SORENSON	RAY W.		YU-0192
SOUZA	WANDA		YU-0397
SPENCER	MARIAN J.		YU-0286
SPENCER	WALTER T.		YU-0287
SPRINGER	LINDA		YU-0407
STEELY	JANICE		YU-0166
STEIN	WENDY		YU-0363
STEVENS	BOB		YU-0416
STEVENS	CHERYL		YU-0416
STEWART	MAUREEN		YU-0106
STIGLICH	WILLIAM		YU-0086
STYLES	MARGARET	NATIONAL PARK SERVICE	YU-0135
SUTTON	JIM		YU-0319
SUTTON	KAY		YU-0319
SWANER	JOSEPH		YU-0341
SWEITZER	CONSTANCE		YU-0159
TAFT	BRUCE		YU-0035
THOMAS	BILL		YU-0118
THOMSON	ERIN		YU-0372
TOBIAS	LINNEA		YU-0399
TRAVERSO	MRS. MARK		YU-0168
TURNER	AL		YU-0042
TUSUP	WENDY		YU-0309
UJDA	HALINA		YU-0389
UJDA	IRENE		YU-0355
UNGER	ARTHUR		YU-0009
VAALER	JIM		YU-0008

LAST NAME	FIRST, MI	ORGANIZATION NAME	LETTER #	
VAN ZANDT	H.R.		YU-0112	
VELLA	VIN		YU-0162	
VIHLINE	LYNNE		YU-0176	
VOGGESSER, Ph.D.	GARRIT	NATIONAL WILDLIFE FEDERATION	YU-0396	
WALKER	CAROL		YU-0311	
WARNER	BARBARA	AMERICAN HORSE DEFENSE FUND	YU-0195	
WARR	BARBARA		YU-0218	
WARR	MIKE		YU-0218	
WATSON	MARK	CITY OF YUMA	YU-0349	
WATT	TERRY		YU-0284	
WEBERS	KATHRYN		YU-0357	
WEEKS	DOLORES		YU-0411	
WEESE	DON		YU-0243	
WEESE	SUSAN		YU-0242	
WEINER	TERRY	DESERT PROTECTIVE COUNCIL	YU-0400	YU-0401
WERNER	WILLIAM	ARIZONA DEPARTMENT OF WATER RESOURCES	YU-0347	
WERNETTE	TIM		YU-0016	
WHITCOMB	LYN		YU-0153	
WILKINS	WALTER		YU-0321	
WILLIAMS	DIANE		YU-0381	
WILLIAMS	EARL		YU-0312	
WILLIAMS	JASON	ARIZONA WILDERNESS COALITION	YU-0279	YU-0401
WILLIAMS	JASON	ARIZONA WILDERNESS COALITION	YU-0401	
WILLIAMS	JOSEPH		YU-0381	
WILLMORE	LINDA		YU-0412	
WILSON	AL		YU-0339	
WILSON	BARBARA		YU-0419	
WILSON	CAROL		YU-0209	
WILSON	JERRY		YU-0419	
WILSON	MARILYN		YU-0200	
WILSON	SUSAN		YU-0340	
WITZEMAN	ROBERT A.	MARICOPA AUDUBON SOCIETY	YU-0107	

LAST NAME	FIRST, MI	ORGANIZATION NAME	LETTER #
WOOLFREY	JANE		YU-0421
WRIGHT	JENNIFER		YU-0204
WYLES	JEFF S.		YU-0269
YEE	RAYMOND		YU-0420
YOUNG	BILLIE	AMERICA'S WILD HORSE ADVOCATES	YU-0387
YOUNG	NICOLA		YU-0202
ZANDONATTI	WILLIAM		YU-0090
ZAPP	KELLY		YU-0374
ZENTALL	MELODIE		YU-0212

GLOSSARY OF TERMS

A

Administrative Route: Routes that lead to developments that have an administrative purpose, where the BLM or some permitted user must have access for regular maintenance or operation.

Adverse Visual Impact: Any modification in land forms, water bodies, or vegetation, or any introduction of structures, which negatively interrupts the visual character of the landscape and disrupts the harmony of the basic elements (i.e., form, line, color, and texture).

(A)esthetics: Relates to the pleasurable characteristics of a physical environment as perceived through the five senses of sight, sound, smell, taste, and touch.

Allotment Management Plan (AMP): A livestock grazing management plan dealing with a specific unit of rangeland and based on multiple use resource management objectives. The AMP considers livestock grazing in relation to other uses of rangelands and to renewable resources (e.g., watershed, vegetation and wildlife). An AMP establishes the seasons of use, number of livestock to be permitted on rangelands, and the range improvements needed.

Appropriate Management Level (AML_2): That "optimum number" of wild horses, which results in a thriving ecological balance and avoids a deterioration of the range.

Animal Unit (AU): One mature (1,000-pound) cow or the equivalent based upon an average daily forage consumption of 26 pounds of dry matter per day.

Animal Unit Month (AUM): The amount of forage needed to sustain one cow, five sheep, or five goats for a month.

Archaeological Feature: A non-portable object, not recoverable from its matrix (usually in an archeological site) without destroying its integrity. Examples are rock paintings, hearths, post holes, floors, and walls.

Area of Critical Environmental Concern (ACEC): A designated area on public lands where special management attention is required: (1) to protect and prevent irreparable damage to fish and wildlife; (2) to protect important historic, cultural, or scenic values, or other natural systems or processes; or (3) to protect life and safety from natural hazards.

AZSITE Database: A computer database containing archaeological site and project information managed by the Arizona State Historic Preservation Office and maintained by the Arizona State Museum and Arizona State University.

B

Back Country Byway: A component of the national scenic byway system which focuses primarily on corridors along back-country roads which have high scenic, historic, archeological, or other public interest values. The road may vary from a single-track bike trail to a low-speed, paved road that traverses back-country areas. (BLM Handbook H-8357-1, B 2)

Basic Elements: The four design elements (form, line, color, and texture), which determine how the character of a landscape is perceived.

Bajada: A broad continuous slope extending along and from the base of a mountain range and formed by coalescing alluvial fans.

Biodiversity (plant and animal): Shorthand for biological diversity; the variety and variability of life, at the genetic, species, and ecosystem level.

Biological Assessment: Information prepared by or under direction of a Federal agency to determine whether a proposed action is likely to: 1) harm threatened or endangered species or designated critical habitat, 2) jeopardize the existence of species that are proposed for listing, or 3) adversely modify proposed critical habitat. Biological assessments must be prepared for major construction activities. The outcome of a biological assessment determines whether formal Section 7 consultation or a conference is needed.

Breeding Zones: An area within which a single population of plants can be planted without fear of misadaptation.

Bryophytes: Small, herbaceous plants that grow closely packed together in mats or cushions on rocks, soil, or as epiphytes on the trunks and leaves of trees.

Buffer Zone: An area designed to separate conflicting forces or uses.

C

Candidate Species: Species not protected under the ESA but being considered by the USFWS for inclusion on the list of Federally threatened and endangered species.

Casual Use (Mining): Mining that only negligibly disturbs federal lands and resources and does not include the use of mechanized earth moving equipment, explosives, or motorized equipment (greater than 25 horsepower). Casual use generally includes panning, non-motorized sluicing, and collecting mineral specimens using hand tools.

Characteristic: A distinguishing trait, feature, or quality.

Characteristic Landscape: The established landscape within an area being viewed. This does not necessarily mean a naturalistic character. It could refer to an agricultural setting, an urban

landscape, a primarily natural environment, or a combination of these types.

Computer Graphics: Visual displays of information produced by an electronic computer. This includes both hard-copy and screen displays.

Contrast: Opposition or unlikeness of different forms, lines, colors, or textures in a landscape.

Contrast Rating: A method of analyzing the potential visual impacts of proposed management activities.

Cretaceous: In geologic history the third and final period of the Mesozoic era, from 144 million to 65 million years ago, during which extensive marine chalk beds formed.

Critical Habitat (Designated): Specific parts of an area that are occupied by a federally listed or endangered plant or animal at the time it is listed and that contain physical or biological features essential to the conservation of the species or that may require special management or protection. Critical habitat may also include specific areas outside an area occupied by a federally listed species, if the Secretary of the Interior determines that these areas are essential for conserving the species.

Cryptogamic Crust (also Cryptogamic Soil): A hard soil crust dominated by a plant community of algae, lichens, or mosses.

Cultural Modification: Any man-caused change in the land form, water form, vegetation, or the addition of a structure which creates a visual contrast in the basic elements (form, line, color, texture) of the naturalistic character of a landscape.

Cultural Resource: A location of human activity, occupation, or use identifiable through field inventory, historical documentation, or oral evidence. Cultural resources include archaeological and historical sites, structures, buildings, objects, artifacts, works of art, architecture, and natural features that were important in past human events. They may consist of physical remains or areas where significant human events occurred, even though evidence of the events no longer remains. And they may include definite locations of traditional, cultural, or religious importance to specified social or cultural groups.

Cultural Resource Data: Cultural resource information embodied in material remains such as artifacts, features, organic materials, and other remnants of past activities. An important aspect of data is context, a concept that refers to the relationships among these types of materials and the situations in which they are found.

Cultural Resource Data Recovery: The professional application of scientific techniques of controlled observation, collection, excavation, and/or removal of physical remains, including analysis, interpretation, explanation, and preservation of recovered remains and associated records in an appropriate curatorial facility used as a means of protection. Data recovery may sometimes employ professional collection of such data as oral histories, genealogies, folklore, and related information to portray the social significance of the affected resources. Such data

recovery is sometimes used as a measure to mitigate the adverse impacts of a ground-disturbing project or activity.

Cultural Resource Integrity: The condition of a cultural property, its capacity to yield scientific data, and its ability to convey its historical significance. Integrity may reflect the authenticity of a property's historic identity, evidenced by the survival or physical characteristics that existed during its historic or prehistoric period, or its expression of the aesthetic or historic sense of a particular period of time.

Cultural Resource Inventory (Survey): A descriptive listing and documentation, including photographs and maps of cultural resources. Included in an inventory are the processes of locating, identifying, and recording sites, structures, buildings, objects, and districts through library and archival research, information from persons knowledgeable about cultural resources, and on-the-ground surveys of varying intensity.

Class I: A professionally prepared study that compiles, analyzes, and synthesizes all available data on an area's cultural resources. Information sources for this study include published and unpublished documents, BLM inventory records, institutional site files, and state and National Register files. Class I inventories may have prehistoric, historic, and ethnological and sociological elements. These inventories are periodically updated to include new data from other studies and Class II and III inventories.

Class II: A professionally conducted, statistically based sample survey designed to describe the probable density, diversity, and distribution of cultural properties in a large area. This survey is achieved by projecting the results of an intensive survey carried out over limited parts of the target area. Within individual sample units, survey aims, methods, and intensities are the same as those applied in Class III inventories. To improve statistical reliability, Class II inventories may be conducted in several phases with different sample designs.

Class III: A professionally conducted intensive survey of an entire target area aimed at locating and recording all visible cultural properties. In a Class III survey, trained observers commonly conduct systematic inspections by walking a series of close-interval parallel transects until they have thoroughly examined an area.

Cultural Resource Project Plan: For cultural resource projects, a detailed design plan that defines the procedures, budget, and schedule for such activities as structure stabilization, recordation, interpretive development, and construction of facilities such as trails. These plans include estimates on workforce, equipment, and supply needs.

Cultural Resource Values: The irreplaceable qualities that are embodied in cultural resources, such as scientific information about prehistory and history, cultural significance to Native Americans and other groups, and the potential to enhance public education and enjoyment of the Nation's rich cultural heritage.

Cultural Site: A physical location of past human activities or events, more commonly referred to as an archaeological site or a historic property. Such sites vary greatly in size and range from

the location of a single cultural resource object to a cluster of cultural resource structures with associated objects and features.

D

Desert Pavement: A ground surface consisting of coarse, densely packed cobbles and gravels that are covered with layers of ferro-manganese deposits and microscopic organisms. Through the years, the stones develop a glossy patina that appears black from a distance. Desert pavement is the result of thousands of years of erosional forces.

Departmental Manual 613: Outlines the specific purposes of the joint management by Reclamation and BLM of Reclamation-withdrawn or -acquired lands that constitute a corridor along the lower Colorado River as identified in the *Lower Colorado River Land Use Plan* of 1964.

Desert Pavement Features: Prehistoric cultural resource features created into the desert pavement, such as intaglios, cleared areas, trails, and rock alignments.

Distance Zones: A subdivision of the landscape as viewed from an observer position. The subdivision (zones) includes foreground-middleground, background, and seldom seen.

E

Ecological Function (sustained): The role or specific contribution of constituent living and non-living elements of ecosystems to system behavior. Sustained ecological function implies the maintained capacity of the land and environmental capacity of the ecosystem.

Ecological Integrity: The quality of a natural unmanaged or managed ecosystem in which the natural ecological processes are sustained with genetic, species, and ecosystem diversity assured for the future.

Ecosystem: Organisms, together with their abiotic environment, forming an interacting system and inhabiting an identifiable space.

Endangered Species: An animal or plant species that is in danger of extinction throughout all or a significant portion of its range (as defined in the ESA, as amended in 1982).

Endemic Species: A plant or animal species or subspecies native to a small region.

Enhancement: A management action designed to improve visual quality.

Entry: When the register of a local land office “enters” land applications in the record books and on the survey plat of the local office (taken from Opportunity and Challenge, The Story of BLM).

Ethnoecology: The study of the relationship between a society and its natural environment, including the spatio-temporal organization of human activities and how nature and natural resources are used (i.e. hunting, fishing, collecting, farming, preparing food); the study of how people perceive and manipulate their environments.

Excavation: The scientific examination of an archaeological site through layer-by-layer removal and study of the contents within prescribed surface units, e.g. square meters.

Exotic Species: A species of plants or animals that is not native to the area where it is found. Any species that is not indigenous, native, or naturalized.

Extensive Recreation Management Areas (ERMA): An area that emphasizes the traditional dispersed recreation use of public lands. ERMAs have an undeveloped character that allows visitors to escape crowds, rely on their own skills and equipment for recreation pursuits, and freedom from stricter regulations. All lands that are not within a designated SRMA revert to the ERMA category. BLM actions in ERMAs are limited to custodial actions and therefore do not require an implementation-level plan.

F

Foreground-middleground Distance Zones: The area visible from a travel route, use area, or other observation point to a distance of 3 to 5 miles. The outer boundary of this zone is defined as the point where the texture and form of individual plants are no longer apparent in the landscape. Vegetation is apparent only in patterns or outline.

Form: The mass or shape of an object or objects which appear unified, such as a vegetative opening in a forest, a cliff formation, or a water tank.

Free Use Permit (FUP): A permit that that is generally issued to a governmental entity (e.g. state, county, or city) that allows the removal mineral materials from the public lands free of charge.

G

Geomorphic Integrity: Maintaining the unimpaired condition of the physical properties of the rock, soil, and water in and around land forms.

Geothermal Resources: Products of geothermal steam or hot water and hot brines, including those resulting from water, gas, or other flids artificially introduced into geothermal formations; heat or other associated energy found in geothermal formations; and associated byproducts (43 CFR 3200.1).

H

Habitat Fragmentation: Process by which habitats are increasingly subdivided into smaller units resulting in their increased insularity and losses of total habitat area.

Harmony: A combination of parts into a pleasing or orderly whole: congruity; a state of agreement of proportionate arrangement of form, line, color, and texture.

Herd Area (HA): The geographic area identified as having been used by wild horse or burro herds as their habitat in 1971.

Herd Management Area (HMA): Public land under the jurisdiction of the BLM that has been designated for special management emphasizing the maintenance of an established wild horse and/or wild burro herd.

Historical Site: A location that was used or occupied after the arrival of Europeans in North America (ca. A.D. 1492). Such sites may consist of physical remains at archaeological sites or areas where significant human events occurred, even though evidence of the events no longer remains. They may have been used by people of either European or Native American descent.

Hohokam: A group of North American Indians who lived between perhaps 300 BC and AD 1400 in central and southern Arizona, largely along the Gila and Salt Rivers.

Hydrologic Connectivity: The condition by which disparate regions on the hillslope are linked via subsurface water flow.

I

Igneous Rock: Rock, such as granite and basalt, that has solidified from a molten or partially molten state.

Indian Tribe: Any American Indian group in the United States that the Secretary of the Interior recognizes as possessing tribal status (listed periodically in the Federal Register).

Imperiled Status: Extremely rare (five or fewer occurrences or very few remaining individuals or acres).

Indigenous: Being of native origin (such as indigenous peoples or indigenous cultural features).

In-migration: The process by which a given geographic area absorbs new individuals/households from locations outside that area (an influx of individuals/households to a given area).

Intaglio: A design made in the desert pavement by moving away the large rocks and scraping back the small cobbles and gravels to expose the lighter soil underneath. Intaglio features were also created by tamping, which would result in a depressed image in the desert pavement. Also referred to as earth figures or geoglyphs.

Interdisciplinary Team: A group of individuals with different training, representing the physical sciences, social sciences, and environmental design arts, assembled to solve a problem or perform a task. The members of the team proceed to a solution with frequent interaction so that each discipline may provide insights to any stage of the problem and disciplines may combine to provide new solutions.

Integrated Pest Management: A pest management strategy that focuses on long-term prevention or suppression of pest problems through a combination of techniques such as encouraging biological control, use of resistant varieties, and adoption of alternate cultural practices such as modification of irrigation, or pruning to make the habitat less conducive to pest development. Pesticides are used only when careful monitoring indicates they are needed according to pre-established guidelines, treatment thresholds, or to prevent pests from significantly interfering with the purposes for which plants are being grown.

Invasive Non-native Plant: A plant species that was introduced to the ecosystem under consideration after European contact as a direct or indirect result of human activity and that produces large numbers of offspring at considerable distances from parent plants.

J

K

Key Observation Point (KOP): one or a series of points on a travel route or at a use area or a potential use area, where the view of a management activity would be most revealing.

L

Landscape Character: The arrangement of a particular landscape as formed by the variety and intensity of the landscape features and the four basic elements of form, line, color, and texture. These factors give the area a distinctive quality which distinguishes it from its immediate surroundings.

Landscape Connectivity Corridors: The extent to which the landscape facilitates wildlife movement.

Landscape Features: The land and water form, vegetation, and structures which compose the characteristic landscape.

Leasable Minerals: Minerals whose extraction from federally managed land requires a lease and the payment of royalties. Leasable minerals include coal, oil and gas, oil shale and tar sands potash, phosphate, sodium, and geothermal steam.

Life Stage Habits: The patterns of behavior during the distinct periods of development of organisms (from inception to death).

Limits of Acceptable Change: A framework for establishing acceptable and appropriate resource and social conditions in recreation settings. A system of management planning.

Line: The path, real or imagined, that the eye follows when perceiving abrupt differences in form, color, or texture. Within landscapes, lines may be found as ridges, skylines, structures, changes in vegetative types, or individual trees and branches.

Locatable Minerals: Minerals subject to exploration, development, and disposal by staking mining claims as authorized by the Mining Law of 1872, as amended. This includes deposits of gold, silver, and other uncommon minerals not subject to lease or sale.

Location: A tract of land whose bounds have been officially designated (as for settlement or for a mining claim).

M

Management Activity: A surface disturbing activity undertaken on the landscape for the purpose of harvesting, traversing, transporting, protecting, changing, replenishing, or otherwise using resources.

Mineral Material Disposal: The sale of sand, gravel, decorative rock, or other materials defined in 43 CFR 3600.

Mining Claim: A mining claim is a selected parcel of Federal Land, valuable for a specific mineral deposit or deposits, for which a right of possession has been asserted under the General Mining Law. This right is restricted to the development and extraction of a mineral deposit. The rights granted by a mining claim protect against a challenge by the United States and other claimants only after the discovery of a valuable mineral deposit. The two types of mining claims are lode and placer. In addition, mill sites and tunnel sites may be located to provide support facilities for lode and placer mining.

Mining Plan of Operations: A plan for mineral exploration and development that a mining operator must submit to BLM for approval for all mining, milling, and bulk sampling of more than 1,000 tons or more and for exploration disturbing more than 5 acres or on special status lands, including wilderness, areas of critical environmental concern, national monuments, national conservation areas, and lands containing proposed or listed threatened or endangered species or their critical habitat. A plan of operations must document in detail all actions that the operator plans to take from exploration through reclamation.

Mitigation: Mitigation includes: (a) Avoiding the impacts altogether by not taking an action or parts of an action, (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation, (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment, (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, (e) Compensating for the impact by replacing or providing substitute resources or environments (40 CFR 1508.20).

Mitigation Measures: Methods or procedures designed to reduce or lessen the adverse impacts caused by management activities.

N

National Historic Preservation Act of 1966, as amended: A federal statute that established a federal program to further the efforts of private agencies and individuals in preserving the Nation's historic and cultural foundations. The National Historic Preservation Act: (1) authorized the National Register of Historic Places, (2) established the Advisory Council on Historic Preservation and a National Trust Fund to administer grants for historic preservation, and (3) authorized the development of regulations to require federal agencies to consider the effects of federally assisted activities on properties included on or eligible for the National Register of Historic Places. Also see National Register of Historic Places**.**

National Historic Trail: One of the three categories of national trails defined in the National Trails System Act of 1968 that can only be established by act of Congress and are administered by federal agencies, although part or all of their land base may be owned and managed by others. National historic trails are generally more than 100 miles long and follow as closely as possible and practicable the original trails or routes of travel of national historic significance. Their purpose is identifying and protecting the historic route and its remnants and artifacts for public use and enjoyment.

National Monument: an area designated to protect objects of scientific and historic interest by public proclamation of the President under the Antiquities Act of 1906, or by Congress for historic landmarks, historic and prehistoric structures, or other objects of historic or scientific interest on public lands. Designation also provides for the management of these features and values.

National Recreation Trail: One of the three categories of national trails defined in the National Trails System Act of 1968 that can only be established by act of Congress and are administered by federal agencies, although part or all of their land base may be owned and managed by others. National Recreation Trails are existing regional and local trails recognized by either the Secretary of Agriculture or the Secretary of the Interior upon application.

National Register District: A group of significant archaeological, historical, or architectural sites, within a defined geographic area, that is listed on the National Register of Historic Places. See National Register of Historic Places**.**

National Register of Historic Places: The official list, established by the National Historic Preservation Act, of the Nation's cultural resources worthy of preservation. The National Register lists archeological, historic, and architectural properties (i.e. districts, sites, buildings, structures, and objects) nominated for their local, state, or national significance by state and federal agencies and approved by the National Register Staff. The National Park Service maintains the National Register. Also see National Historic Preservation Act.

National Register Eligible Properties: Cultural resource properties that meet the National Register criteria and have been determined eligible for nomination to the National Register of Historic Places because of their local, state, or national significance. Eligible properties generally are older than 50 years and have retained their integrity. They meet one or more of four criteria: (a) associated with events that have made a significant contribution to the broad patterns of our history; (b) associated with the lives of persons significant in our past; (c) embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master; and (d) have yielded, or may be likely to yield, information important in prehistory or history.

National Wild and Scenic Rivers System: A system of nationally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historical, cultural, and other similar values and are preserved in a free-flowing condition. The system consists of three types of streams: (1) recreation—rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversion in the past, (2) scenic—rivers or sections of rivers free of impoundments with shorelines or watersheds still largely undeveloped but accessible in places by roads, and (3) wild—rivers or sections of rivers free of impoundments and generally inaccessible except by trails with watersheds or shorelines essentially primitive and waters unpolluted.

Native Species: A species of plant or animal that naturally occurs in an area and that was not introduced by humans (indigenous).

Naturalness: Lands and resources exhibit a high degree of naturalness when affected primarily by the forces of nature and where the imprint of human activity is substantially unnoticeable. BLM has authority to inventory, assess, and/or monitor the attributes of the lands and resources on public lands, which, taken together, are an indication of an area's naturalness. These attributes may include the presence or absence of roads and trails, fences and other improvements; the nature and extent of landscape modifications; the presence of native vegetation communities; and the connectivity of habitats.

Naturalistic Character: A landscape setting where the basic elements are displayed in a composition that appears unaltered by man.

No Surface Occupancy: A fluid mineral leasing stipulation that prohibits occupancy or disturbance on all or part of the lease surface to protect special values of uses. Lessees may explore for or exploit the fluid minerals under leases restricted by this stipulation by using directional drilling from sites outside the no surface occupancy area.

Notice: The notification a mining operator must submit to BLM of the intention to begin an operation that will disturb 5 acres or less a year within a mining claim or project area. The intent of a Notice is to permit operations with limited geographic disturbance to begin after a quick review for potential resource conflicts and to eliminate the need for federal action. A Notice requires no special forms, but an operator must submit specific information. BLM must complete its review of the Notice within 15 calendar days of its receipt unless more information is needed to determine if the operation would cause unnecessary or undue degradation.

Noxious Weed: According to the Federal Noxious Weed Act (PL 93-629), a weed that causes disease or has other adverse effects on man or his environment and therefore is detrimental to the agricultural and commerce of the United States and to the public health.

O

Off-Highway Vehicle (OHV): Any vehicle capable of or designed for travel on or immediately over land, water, or other natural terrain, deriving motive power from any source other than muscle. OHVs exclude: 1) any non-amphibious registered motorboat; 2), any fire, emergency, or law enforcement vehicle while being used for official or emergency purposes; 3) any vehicle whose use is expressly authorized by a permit, lease, license, agreement, or contract issued by an authorized officer or otherwise approved; 4) vehicles in official use; and 5) any combat or combat support vehicle when used in times of national defense emergencies.

P

Paleontological Resources (Fossils): The physical remains of plants and animals preserved in soils and sedimentary rock formations. Paleontological resources are important for understanding past environments, environmental change, and the evolution of life.

Paleontology: A science dealing with the life forms of past geological periods as known from fossil remains.

Paleozoic Era: An era of geologic time (600 million to 280 million years ago) between the Late Precambrian and the Mesozoic eras and comprising the Cambrian, Ordovician, Silurian, Devonian, Missippian, Pennsylvanian, and Permian periods.

Patayan: A group of North American Indians who lived between perhaps AD 700 and AD 1550 in western Arizona, southeastern California, and Baja California largely along the lower Colorado River and lower Gila River valleys.

Petroglyph: Pictures, symbols, or other art work pecked, carved, or incised on natural rock surfaces.

Phenology: The study of periodic biological phenomena, such as flowering or seeding, especially as related to climate.

Physiographic Province: An extensive portion of the landscape normally encompassing many hundreds of square miles, which portrays similar qualities of soil, rock, slope, and vegetation of the same geomorphic origin (Fenneman 1946; Sahrhaftig 1975).

Plant Community: Assemblage of plant populations in a defined area or physical habitat; an aggregation of plants similar in species composition and structure, occupying similar habitats over the landscape.

Pleistocene (Ice Age): An epoch in the Quarternary period of geologic history lasting from 1.8 million to 10,000 years ago. The Pleistocene was an epoch of multiple glaciation, during which continental glaciers covered nearly one fifth of the earth's land.

Pollination Ecology: Branch of ecology concerned with the distribution of pollen by wind or animals and its efficacy in fertilization and seed set.

Prehistoric: Refers to the period wherein American Indian cultural activities took place before written records and not yet influenced by contact with nonnative culture(s).

Primitive and Unconfined Recreation: Visitors may have outstanding opportunities for primitive and unconfined types of recreation where the use of the area is through non-motorized, non-mechanical means, and where no or minimal developed recreation facilities are encountered.

Primitive Road: A linear route used by four-wheel drive or high-clearance vehicles. Primitive Roads do not normally meet any BLM road design standards.

Priority Plant: Plants that are rare, unusual, or key species that are not listed as BLM Sensitive or federally listed as threatened or endangered.

Q

Quarternary Period: The current period of geologic history and second period of the Cenozoic era, which is believed to have covered the last 2 million to 3 million years.

R

Rare Plant: Plant that is not presently threatened with extinction but exists in such small numbers throughout its range that it may become endangered if its present environment worsens.

Recreation Opportunity Spectrum (ROS): A planning inventory process that provides a framework for defining classes of outdoor recreation environments, activities, and experience opportunities. In ROS, the setting, activities, and opportunities for experiences are arranged along a spectrum of six classes: primitive, semi-primitive non-motorized, roaded natural, rural, and urban. The setting is measured by the number of people expected, producing different levels of solitude and the evidence of human use as shown by management activities and degree of development. The resulting ROS analysis defines specific geographic areas on the ground, each of which encompasses one of the six classes.

Rehabilitation: A management alternative and/or practice which restores landscapes to a desired scenic quality.

Relict Population: A population limited to a small part of the original species range.

Restoration (Cultural Resource): The process of accurately reestablishing the form and details of a property or portion of a property together with its setting, as it appeared in a particular period of time. Restoration may involve removing later work that is not in itself significant and replacing missing original work. Also see Stabilization (Cultural Resource).

Right-of-way Corridor: A permit or easement that authorizes the use of lands for certain specified purposes, commonly for pipelines, roads, telephone lines or powerlines.

Riparian: Pertaining to or situated on or along the bank of streams, lakes, and reservoirs.

Riparian Area: A form of wetland transition between permanently saturated wetlands and upland areas. Riparian areas exhibit vegetation or physical characteristics that reflect the influence of permanent surface or subsurface water. Typical riparian areas include lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels. Excluded are ephemeral streams or washes that lack vegetation and depend on free water in the soil.

Road: As used herein (a linear route), a transportation facility used primarily by vehicles having four or more wheels, documented as such by the owner, and maintained for regular and continuous use.

Route: Any motorized, non-motorized, or mechanized transportation corridor. Corridor may either be terrestrial or a waterway. “Roads,” “trails,” and/or “ways” are considered routes. Collectively refer to roads, primitive roads, and trails.

RS 2477: Revised Statute 2477 was enacted as part of the Mining Law of 1866, during a time when the federal government’s focus was on encouraging settlement and development of the West. Congress passed R.S. 2477 to ensure miners’ routes to their claims and cattlemen’s trails for their herds by granting rights-of-way over any federal land not otherwise set aside. Although Congress repealed the statute in 1976 with the Federal Land Policy and Management Act, it did not terminate rights-of-way in existence at that time. As part of the new law in 1976, Congress recognized all valid existing claims to these rights-of-way as of that date.

S

Salable Minerals: Common variety minerals on the public lands, such as sand and gravel, which are used mainly for construction and are disposed by sales or special permits to local governments. See also Mineral Materials.

Scale: The proportionate size relationship between an object and the surroundings in which the object is placed.

Scenery: The aggregate of features that give character to a landscape.

Scenic Area: An area whose landscape character exhibits a high degree of variety and harmony among the basic elements which results in a pleasant landscape to view.

Scenic Quality: The relative worth of a landscape from a visual perception point of view.

Scenic Quality Evaluation Key Factors: The seven factors (land form, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications) used to evaluate the scenic quality of a landscape.

Scenic Quality Ratings: The relative scenic quality (A, B, or C) assigned a landscape by applying the scenic quality evaluation key factors; scenic quality A being the highest rating, B a moderate rating, and C the lowest rating.

Scenic Values: (refer to scenic quality and scenic quality ratings).

Sedimentary Rocks: Rocks, such as sandstone, limestone, and shale, that are formed from sediments or transported fragments deposited in water.

Seed Zones: An area within which seed can be collected from any natural stand and planted in any new site without fear of misadaptation.

Selection: Those Federal lands that an applicant chooses for BLM disposal under existing laws.

Sensitive Species (plant and animal): All species that are under status review, have small or declining populations, live in unique habitats, or need special management. Sensitive species include threatened, endangered, and proposed species that are classified by the USFWS.

Sensitivity Levels: Measures (e.g., high, medium, and low) of public concern for the maintenance of scenic quality.

Simulation: A realistic visual portrayal which demonstrates the perceivable changes in landscape features caused by a proposed management activity. This is done through the use of photography, artwork, computer graphics, and other such techniques.

Solitude: Visitors may have outstanding opportunities for solitude when the sights, sounds, and evidence of other people are rare or infrequent and where visitors can be isolated, alone, or secluded from others.

Special Cultural Resource Management Area (SCRMA): An area containing cultural resources that are of special importance for public use, scientific use, traditional use or other uses as defined in BLM Manual 8110.4.

Special Recreation Management Area (SRMA): Designation intensifies management of areas where outdoor recreation is a high priority. It helps direct recreation program priorities toward areas with high resource values, elevated public concern, or significant amounts of recreational activity. Areas with a SRMA designation can be expected to see investments in recreation facilities and visitor services aimed at reducing resource damage and mitigating user conflicts. Implementation-level plans are completed for each SRMA to fully describe management actions and objectives.

Special Status Species: Plant and animal species listed as endangered, threatened, candidate, or sensitive by Federal or State governments.

Split-estate: Land whose surface rights and mineral rights are owned by different entities.

State Historic Preservation Officer (SHPO): The official within and authorized by each state at the request of the Secretary of the Interior to act as liaison for the National Historic Preservation Act. Also see National Historic Preservation Act.

Subsurface: Of or pertaining to rock or mineral deposits which generally are found below the ground surface.

Suburban Recreation Setting (ROS Class): The suburban recreation setting provides limited or little opportunity to see, hear, or smell the natural resources because of the widespread and very prevalent level of development, human activity, or natural resource modification. Watching and meeting other visitors are expected and desired; opportunity to briefly relieve stress and to alter everyday routine is important; families are common; a high sense of safety, security, comfort, and convenience is central and dominant. The mix of recreation activities may be diverse, ranging from relaxation and contemplation to physical exertion, thrills, excitement, and challenge; learning about the natural and cultural history of the area is important to some; area is popular with local residents or long-term winter visitors.

Surface Disturbing Activities: This term generally refers to any BLM-authorized action that disturbs vegetation and surface soil, increasing erosion potential above normal site conditions. This definition typically excludes allowable casual use of the public lands, as outlined in the CFRs. Examples of surface disturbing activities are mining; construction and/or maintenance of roads, pipelines, and powerlines; installation of facilities; and implementation of vegetation treatments.

Surface Occupancy: See No Surface Occupancy.

T

Take: Under the ESA, take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

Texture: The visual manifestations of the interplay of light and shadow created by the variations in the surface of an object or landscape.

Thermic: A soil temperature regime that has a mean annual soil temperature of 15 degrees Celsius but not less than 22 degrees Celsius, comma and greater than five degrees Celsius differences between mean summer and mean winter soil temperatures at 50 cm below the surface.

Threatened Species: Any plant or animal species likely to become endangered within the foreseeable future throughout all or part of its range and designated by the USFWS under the ESA.

Traditional Use: This cultural resource use category is to be applied to any cultural resource that is perceived by a specified social and/or cultural group as having attributes that contribute to maintaining the heritage or existence of that group. This use category signifies that the cultural resource is to be managed in a way that takes those attributes into account, as applicable.

Trail: (Interagency definition) linear route managed for human powered, stock, or OHV forms of recreation or for historic or heritage values. Trails are not generally managed for use by four wheel drive or high clearance vehicles.

Transportation System: The sum of the BLM's recognized inventory of linear features (roads, primitive roads, and trails) formally recognized, designated, and approved as part of the BLM's transportation system.

Travel Management (comprehensive): The proactive interdisciplinary planning, on-the-ground management, and administration of travel networks (both motorized and non-motorized) to ensure public access, natural resources and regulatory needs are considered. It consists of inventory, planning, designation, implementation, education, enforcement, monitoring, easement acquisition, mapping and signing, and other measures necessary to provide access to public lands for a wide variety of uses (including uses for recreational, traditional, casual, agricultural, commercial, educational, and other purposes).

U

Uncommon Variety Minerals: Stone, gravel, pumice, and cinder deposits that have distinct and special properties making them commercially valuable in a manufacturing, industrial, or processing operation. Such minerals are locatable under the Mining Law of 1872, as amended. In determining a deposit’s commercial value, the following factors may be considered: quality and quantity of the deposit, geographic location, accessibility to transportation, and proximity to market or point of use.

Urban Recreation Setting (ROS Class): The urban recreation setting provides very limited opportunities to see, hear, and smell the natural resources because of the extensive level of development, human activity, and natural resource modification. Watching and meeting other visitors are expected and desired; large group activities are popular; opportunity to briefly relieve

stress and to alter everyday routines is important; socializing with family and friends is important; large groups and families are common; a high sense of safety, security, comfort, and convenience is central and dominant.The mix of recreation activities may be diverse, ranging from those of relaxation and contemplation to those of physical exertion, thrills, excitement and challenge; area is often attractive to short-term visitors, tours, and school groups; area may serve as a staging area for visitors traveling on to areas with non-urban recreation settings.

Use Volume: The total volume of visitor use each segment of a travel route or use area receives.

V

Vandalism (Cultural Resource): Malicious damage or the unauthorized collecting, excavating, or defacing of cultural resources. Section 6 of the Archaeological Resources Protection Act states that "no person may excavate, remove, damage, or otherwise alter or deface any archaeological resource located on public lands or Indian lands, unless such activity is pursuant to a permit issued under section 4 of this act."

Variables: Factors influencing visual perception including distance, angle of observation, time, size or scale, season of the year, light, and atmospheric conditions.

Variety: The state or quality of being varied and having the absence of monotony or sameness.

Vegetation Structure: The composition of an area's vegetation; plant species, growth forms, abundance, vegetation types, and spatial arrangement.

Vegetative Composition: The types of vegetation that are present in an area.

Viewshed: The landscape that can be directly seen under favorable atmospheric conditions, from a viewpoint or along a transportation corridor.
Protection, rehabilitation, or enhancement is desirable and possible.

Visual Contrast: See Contrast.

Visual Quality: See Scenic Quality.

Visual Resources: The visible physical features on a landscape (e.g., land, water, vegetation, animals, structures, and other features).

Visual Resource Management (VRM): A BLM developed system used to evaluate the visual resources of a given area to determine what degree of

Visual Resource Management Classes: Categories assigned to public lands based on scenic quality, sensitivity level, and distance zones. There are four classes. Each class has an objective which prescribes the amount of change allowed in the characteristic landscape.

Visual Resource Management (VRM): The inventory and planning actions taken to identify visual values and to establish objectives for managing those values; and the management actions taken to achieve the visual management objectives.

Visual Values: See Scenic Quality.

W

Wetland: An area that is inundated or saturated by surface or ground water often and long enough to support a prevalence of vegetation typically adapted for life in saturated soil. Wetlands include marshes, shallows, lakeshores, cienegas, and riparian areas.

Wilderness: A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this chapter an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Wilderness Characteristics: Features of the land associated with the concept of wilderness that may be considered in land use planning when BLM determines that those characteristics are reasonably present, of sufficient value (condition, uniqueness, relevance, importance) and need (trend, risk), and are practical to manage. Lands are considered to maintain wilderness characteristics when opportunities to experience naturalness, solitude, or primitive and unconfined types of recreation are reasonably present.

Withdrawals, first form: Lands withdrawn by Reclamation which are exempt from both general land laws and mining laws. First form withdrawals are lands which may be needed in the construction and maintenance of irrigation projects.

Withdrawals, second form: Lands withdrawn by Reclamation which are exempt from general land laws, but not exempt from mining laws. Second form withdrawals may allow for specific land laws, i.e., homestead entry. Second form withdrawals include lands which are believed to be susceptible to irrigation from a reclamation project.

Wildlife: A broad term that includes birds, reptiles, amphibians, and non-domesticated mammals.

X

Xeroriparian: an area in a drainage that supports plant species more characteristic of uplands than wetlands, but that is more densely vegetated than areas removed from the drainage. Any flows in these channels are characteristically ephemeral but water may also be subsurface and the drainage may not flow.

ACRONYMS

ACEC	Area of Critical Environmental Concern
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
ADWR	Arizona Department of Water Resources
AGFC	Arizona Game and Fish Commission
AGFD	Arizona Game and Fish Department
AML_1	abandoned mine lands
AML_2	Appropriate Management Level
AMP	Allotment Management Plan
AMR	Appropriate Management Response
APCD	Air Pollution Control District
ARPA	Archaeological Resource Protection Act
ATV	all-terrain vehicle
AU	Animal Unit
AUM	Animal Unit Month
AWC	Arizona Wilderness Coalition
AZ	Arizona
BCBY	Back Country Byway
BMGR	Barry M. Goldwater Range
BLM	Bureau of Land Management
BMP	Best Management Practice
BO	Biological Opinion
CA	California
CAA	Clean Air Act
CALTRANS	California Department of Transportation
CAT	Content Analysis Team
CDFG	California Department of Fish and Game
CERCLA	Comprehensive Environmental Recovery, Compensation and Liability Act
CFPO	cactus ferruginous pygmy-owl
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CMA	Coordinated Management Area
CO	carbon monoxide
CO_2	carbon dioxide
CRIT	Colorado River Indian Tribes
CRICA	Colorado River International Conservation Area
CRMP	Cultural Resource Management Plan
CWA	Clean Water Act
DEIS	Draft Environmental Impact Statement
DM	Departmental Manual
DRMP	Draft Resource Management Plan
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order

ERMA	Extensive Recreation Management Areas
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FCR	Field Contact Representative
FEIS	Final Environmental Impact Statement
FGDC	Federal Geographic Data Committee
FHWA	Federal Highway Administration
FLPMA	Federal Land Policy and Management Act of 1976
FLREA	Federal Lands Recreation Enhancement Act
FMP	fire management plan
FMU	Fire Management Unit
FTHL	flat-tailed horned lizard
GIS	Geographic Information System
HA	Herd Area
HMA	Herd Management Area
HMAP	Herd Management Area Plan
I-8	Interstate Highway 8
I-10	Interstate 10
IA	Interagency Agreement
IM	Instruction Memorandum
IPM	Integrated Pest Management
JKA	James Kent & Associates
KOP	key observation point
LCR	Lower Colorado River
LCR MSCP	Lower Colorado River Multiple Species Conservation Program
LGN	Lower Gila North
LGS	Lower Gila South
LHFO	Lake Havasu Field Office
LTVA	Long-Term Visitor Area
LUP	Land Use Plan
MCAS–Yuma	Marine Corps Air Station–Yuma
MIST	minimum impact suppression tactics
MLA	Mineral Leasing Act
MLRA	Major Land Resource Area
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
Mph	miles per hour
MPO	Mining Plan of Operations
MS	(BLM) Manual Section
MSCP	Multiple Species Conservation Plan
MTP	master title plat
NAGPRA	Native American Graves Protection and Repatriation act
NEAP	Natural Events Action Plan
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NHT	National Historic Trail

NLCS	National Landscape Conservation System
NO	nitric oxyde
NO_2	nitrogen dioxide
NOA	Notice of Availability
NOI	Notice of Intent
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRT	National Recreation Trail
NWR	National Wildlife Refuge
O_3	ozone
OHV	off-highway vehicle
Pb	lead
PC	Public Concern
PCE	tetrachloroethene
PEIS	Programmatic Environmental Impact Statement
PFC	Proper Functioning Condition
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PM_{10}	particulate matter less than 10 microns in diameter
PRMP	Proposed Resource Management Plan
PWC	personal water craft
R&PP	Recreation and Public Purposes Act
RAC	Resource Advisory Council
RCRA	Resource Conservation Recovery Act
Reclamation	See: USDOI Reclamation
RFA	Reasonable Foreseeable Management Action Scenario
RFD	Reasonable Foreseeable Development Scenario
RAMP	Recreation Area Management Plan
RMIS	Recreation Management Information System
RMP	Resource Management Plan
RMZ	Recreation Management Zone
ROD	Record of Decision
ROS	Recreation Opportunity Spectrum
ROW	Right-of-Way
RP&P	Recreation and Public Purposes Act
RRAC	Recreation Resource Advisory Council
RV	recreational vehicle
SC	Sub-Concern
SCORP	Statewide Comprehensive Outdoor Recreation Plans
SCRMA	Special Cultural Resource Management Area
SD	Special Designation
SEINET	Southwest Environmental Information Network
SHPO	State Historic Preservation Office
SIB	Southern International Boundary
SO_2	sulfur dioxide
SRMA	Special Recreation Management Areas

SRP	Special Recreation Permit
SWFL	southwestern willow flycatcher
TDS	total dissolved solids
TES	threatened, endangered, and sensitive
TGA	Taylor Grazing Act
TMA	Travel Management Area
TMDL	Total Maximum Daily Load
TMN	Travel Management Network
TR	Technical Reference
U.S.	United States
U.S.C.	United States Code
USDOA	United States Department of Agriculture
USDOE	United States Department of Energy
USDOI	United States Department of the Interior
USDOT	United States Department of Transportation
USDOI BLM	United States Department of the Interior, Bureau of Land Management
USDOI Reclamation	United States Department of the Interior, Bureau of Reclamation
USGS	U.S. Geological Survey
USIBWC	United States Section International Boundary and Waters Commission
USFWS	United States Fish and Wildlife Service
UXO	Unexploded Ordnance
VFW	Veterans of Foreign Wars
VHA	Vegetation Habitat Management Area
VOC	volatile organic compound
VRM	Visual Resource Management
WHA	Wildlife Habitat Management Area
WH&B	Wild Horse & Burros
WMIDD	Wellton-Mohawk Irrigation and Drainage District
WO	Washington Office
WSA	Wilderness Study Area
WUG	Western Utility Group
WUI	Wildland Urban Interface
YFO	Yuma Field Office
YPG	U.S. Army Yuma Proving Ground

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RESULTS OF SCOPING

INTRODUCTION

Public comments received during the scoping period address a variety of resources and resource uses, as well as management considerations. Each comment letter was reviewed and individual comments within each letter were analyzed and separated into issue categories. Public comments and management concerns were separated into approximately 22 different issues, some of which were further separated into sub-issues in those instances when the volume and type of public comment within one general issue warranted separate discussion. For example, OHV use is a sub-issue under Transportation Planning and Access.

A number of public comments regarding how in general the area should be managed without reference to a particular resource or other issue were received. For example, numerous comments expressed a preference that the area be managed as it is currently with no changes. These comments were not placed within any issue category, unless the comment addressed a particular resource. A "No Action Alternative" will be addressed as part of the EIS.

Each of the 22 issues identified below in Table 1 will be carried forward and considered further in the development of alternatives. The 22 issues identified during scoping are discussed in this section, which is organized as follows:

- Issue Summary – A general summary of this issue as reflected in public comment.
- BLM Management Concerns – These concerns may not have been identified by the public during scoping, but will be considered as issues to be addressed through the RMP/EIS. Decisions which have been evaluated and determined valid will be carried forward.
- Agency and Tribal Concerns – Comments provided by tribes and other agencies specific to the particular issue.
- Planning Criteria – Planning criteria relevant to this issue to be used in the development of the RMP/EIS.
- Issues Addressed Administratively – This sub-section only appears when public comments were received concerning this issue category. These issues will not be addressed in the RMP/EIS process as the issue is either addressed through current management and/or is currently being addressed by the YFO independent of this planning effort.
- Issues Not Within BLM Jurisdiction – This sub-section only appears when public comments were received concerning this issue category. These issues will not be addressed in the RMP/EIS process as the issue is either beyond the scope of the current plans or outside the authority of BLM.

Table 1, starting on the next page, provides an index of public comments by issue category that will be addressed through the RMP/EIS process. Table 1 is intended to provide an easy reference to the comments that will be addressed through the RMP/EIS process, by issue category. Individual comments are not repeated in the issue discussions to follow, which contain instead a

TABLE 1
SUMMARY OF PUBLIC COMMENTS BY ISSUE CATEGORY

Issue No.	Issue	Sub-Issue (if applicable)	Public Issue/Comment	Total Received
1	Riparian Areas, Floodplains, and Wetlands		▪ Management should provide more emphasis on protection of riparian and wetland habitat. ▪ Limit motorized uses to areas that avoid riparian areas. ▪ The lower Colorado River corridor provides valuable wetland and riparian habitat.	4
2	Soil, Water, and Air Quality		▪ OHV use causes erosion. ▪ Protect water resources from overuse. ▪ Include standards by which uses will be modified to prevent damage to soils, range, wildlife, and watersheds during drought. ▪ Examine water availability/use in all watersheds to determine how much water is going to various uses and how much is left intact. Determine this prior to decisions for specific actions to ensure enough water is available for wildlife. ▪ Address how water resources will be protected and enhanced. Specify best management practices. ▪ Consider closing roads to mitigate effects of disruption to natural sheet flow of water, which changes vegetation and results in impacts to forage for Sonoran pronghorn.	9
3	Vegetation Management		▪ OHV use causes the spread of exotic plants and disrupts forage and native vegetation. ▪ Do not allow application of herbicides or other toxicants, which would cause ecological harm. Instead, address root causes of land disturbances and noxious weeds (i.e., grazing). ▪ Consider closing roads to mitigate effects of disruption to natural sheet flow of water, which changes vegetation and results in impacts to forage for Sonoran pronghorn. ▪ Manage for more revegetation and controlled burns to control non-native species. ▪ Use more controlled burns with revegetation of cottonwood and willow. ▪ Area is important for native seed/plant resources and seed banking. ▪ Determine desired future conditions for vegetation. ▪ All land uses should limit growth of invasive plants. ▪ Address how grazing impacts problem of invasive, nonnative vegetation. ▪ Address problems droughts bring to vegetation management and establish protocols for livestock reduction during drought, including best management practices. ▪ Consider rehabilitation after prescribed or wild fire, including special seed mix needs and noxious weed management. ▪ Consumptive uses should be phased out. ▪ Timber harvest/lumbering, developing natural resources is an important use of the land. ▪ Maintaining species sustainability is BLM's responsibility regardless of district planning boundaries.	25

NOTE: Where comments apply to more than one issue category, the comment is repeated in the appropriate categories.

TABLE 1
SUMMARY OF PUBLIC COMMENTS BY ISSUE CATEGORY

Issue No.	Issue	Sub-Issue (if applicable)	Public Issue/Comment	Total Received
4	Fish and Wildlife		▪ OHV use harasses wildlife and causes habitat fragmentation. ▪ Birds and animals thrive near agriculture, which provides food and water in a harsh desert environment. ▪ Add planning criteria that recognizes importance of predators in native ecosystems. ▪ Adopt strict policies against predator control and do not allow other agencies to lethally control predators. ▪ Do not allow application of rodenticides or insecticides, as rodents play important roles and some wildlife depend on invertebrates for prey. ▪ Preserve wildlife by building and maintaining water areas instead of closing access. ▪ Continue efforts to enhance wildlife habitat. ▪ Do not fence water holes, should be available to all animals including burros. ▪ There should be no new guzzlers. ▪ Address fragmentation of habitats from proposed development. ▪ Address impacts to ground nesting birds from grazing. ▪ Address impacts to birds and other wildlife from proposed wind towers. ▪ Provide for wildlife corridors between YFO and Phoenix Field Office lands including Saddle Mountain, Woolsey Peak Wilderness, and Eagletails. ▪ Scott's Lead Well off BLM 249 is often empty, and there are no other catchments for wildlife in the area. ▪ Manage for maximum conservation and protection, and long-range goals to protect for future generations. ▪ Maintaining species sustainability is BLM's responsibility regardless of district planning boundaries.	77
5	Threatened, Endangered, and Special Status Species		▪ The Sonoran pronghorn is being impacted by the proliferation of motorized routes. ▪ There needs to be better protection for the flat-tailed horned lizard. ▪ Consider Sonoran pronghorn for ACEC designation as it is threatened by livestock grazing, road construction, OHV use. ▪ Designate Sonoran desert tortoise for ACEC as it is harmed by livestock grazing, OHV, other habitat destruction. ▪ Analyze effects of roads on Sonoran pronghorn habitat. ▪ Area maintains populations of desert bighorn sheep and other diminishing species, and the Eagletail Mountains WA is critical to the survivability of bighorns in other areas. ▪ Address how future land uses will be managed so they don't contribute to the need for Federal listing.	36

NOTE: Where comments apply to more than one issue category, the comment is repeated in the appropriate categories.

TABLE 1
SUMMARY OF PUBLIC COMMENTS BY ISSUE CATEGORY

Issue No.	Issue	Sub-Issue (if applicable)	Public Issue/Comment	Total Received
6	Cultural and Paleontological Resources and Native American Issues		▪ Concern with the protection of the Blythe Giant Intaglios and other geoglyphs along the Colorado River. ▪ Sears Point needs to be protected, potentially by fencing. ▪ OHV use causes destruction to cultural sites. ▪ Values historic evidence of man's ancient and modern use in the area including intaglios, homestead sites, Patton's army sites, old mines, historic trails. ▪ Management should record and protect cultural sites by signing, employee visits, volunteer/site steward monitoring, potentially fencing. ▪ Management should protect cultural sites but still allow public access to them. ▪ BLM should provide to the public a map of cultural resources in approved areas and keep it updated. ▪ Area has a special history for Native Americans. ▪ A stewardship program to help preserve cultural sites, potentially including fencing and limiting access.	33
7	Fire Management		▪ Roads created by OHV use increase risk of wildfire. ▪ Manage for more revegetation and controlled burns to control non-native species. ▪ Use more controlled burns with revegetation of cottonwood and willow. ▪ Determine when and why prescribed burns will occur including a consideration for habitat, rehabilitation after prescribed or wild fire, special seed mix needs, and noxious weed management. ▪ If fire is used, limit livestock use for two years.	5
8	Hazardous Materi-als and Solid Waste		▪ Concerned about illegal dumping.	4
9	Recreation	General	▪ BLM should continue to allocate areas for camping (with and without RVs). ▪ Keep LTVAs open. ▪ Visitors enjoy viewing wildlife and hunting birds drawn by agriculture production. ▪ Horseback riding and ATV use should not be in the same category because ATVs cause more damage. ▪ Horse activities should not be limited to roads and washes. Should be allowed to ride on existing trails. ▪ Squaw Lake boat parking area needs to be enlarged to provide an overflow area for parking and provisions for larger boats and travelers. ▪ BLM-approved vendors who provide water, dumping, and RV repairs, etc. should have another way of advertising besides posting on a small, crowded message board. ▪ Provide recreational and cultural opportunities at least cost. ▪ Manage for multiple use. ▪ Keep an area of the dunes for hiking only. ▪ Clean up Hippy Hole and then turn it into a recreational campground.	116

NOTE: Where comments apply to more than one issue category, the comment is repeated in the appropriate categories.

TABLE 1
SUMMARY OF PUBLIC COMMENTS BY ISSUE CATEGORY

Issue No.	Issue	Sub-Issue (if applicable)	Public Issue/Comment	Total Received
9 cont.	Recreation (cont.)	Education	▪ Visitors should be educated about Native American culture, which would help prevent damage to cultural sites. ▪ Public should be aware of public ownership of archaeological resources and what they are. ▪ Provide educational opportunities so visitors can learn how to preserve and enjoy the land. ▪ Staff with knowledgeable rangers who can teach people about the natural environment. ▪ Land should be available for university to research native plants and cultural plants for treatment of diabetes.	15
10	Visual Resources		▪ Desire to maintain open spaces.	35
11	Land Tenure and Use Authorizations	General	▪ Do not want to lose usage for more development in such places as Wellton Hills #1 and #2 and Coyote Wash. ▪ There should be no more disposals or exchanges. ▪ Exchanges to benefit management should be explored. High wildlife values should be considered in exchanges. ▪ Identify how the public will be involved in land transfers. ▪ Disposals should be limited because they result in less protection to flora/fauna. They should only be considered for opportunities to consolidate Federal lands or other land ownership patterns that facilitate management for flora/fauna. ▪ Do not dispose or exchange lands that have Sonoran pronghorn or desert tortoise habitat. ▪ Values land because they own a home and live on it. ▪ Supports land exchange for Harvey's Fishing Hole. ▪ Loss of agricultural leases can have a negative impact on local agricultural economy. ▪ Agriculture on public land produces revenue for American people and reduces expenditure for other uses. ▪ Agriculture is the best, most productive, and most judicious use of the land. ▪ Agriculture is consistent with stated mission of BLM to sustain health, diversity, and productivity of public lands. ▪ Agriculture meets FLPMA requirements that public lands be managed in a manner that recognizes nation's need for food and fiber from public lands. ▪ Agriculture acts as a deterrent to illegal entry. If taken out of production it would revert to underbrush and salt cedars, complicating Border Patrol efforts to secure the area. ▪ Limit future growth by maintaining natural surroundings and limiting development. ▪ If public is denied use of land, then they aren't "public lands," they are really government-owned lands owned contrary to constitutional edict. ▪ Land provides industrial expansion opportunities for landlocked towns.	53
11 cont.	Land Tenure and Use Authorizations cont.	General cont.	▪ Would like BLM land within Quartzsite town limits opened to development by the town. ▪ Provide long-term leases to entities along the river like the Native Americans have been doing. ▪ Some access is blocked by private holdings.	53

NOTE: Where comments apply to more than one issue category, the comment is repeated in the appropriate categories.

TABLE 1
SUMMARY OF PUBLIC COMMENTS BY ISSUE CATEGORY

Issue No.	Issue	Sub-Issue (if applicable)	Public Issue/Comment	Total Received
		ROW Corridors	▪ Identify future utility corridors. There should be no amendments for future corridors. ▪ Existing corridors should be used instead of new ones.	1
12	Mineral Resources		▪ Mining is an important use for economic benefit. ▪ Should be active oversight/control of mining. ▪ Include alternatives with no new oil/gas leasing or only leasing than ensures resource health. ▪ Include development of energy minerals and related issues, including the identification of future proposed mineral leasing areas and areas not suited. ▪ Timber harvest/lumbering, developing natural resources is an important use of the land. ▪ Consumptive uses should be phased out. ▪ Need restoration of mining and toxins (pond areas). ▪ Increase public allotment of gravel from 250 to 500 pounds.	21
13	Travel Management	General	▪ How will BLM address route designations for areas with wilderness characteristics, ACECs, and other areas with special resources? ▪ Opposed to further closure of public land through road closure or wilderness designation. ▪ Due to access closures, it has become difficult for individuals to enjoy public lands. ▪ Access should not be changed or further limited and roads, trails, and washes should remain open to vehicles. ▪ Reopen historic routes and roads, which have been closed, to old mines or ranches. ▪ There should be no new roads. ▪ Need route designation to manage routes created by illegal immigrants and lack of designation. ▪ There is no point in preserving area if people can't access it to enjoy it. ▪ Open access to all areas designated as wilderness or monument. ▪ Reopen inland route between Sears and Independence Points. ▪ Reopen river route between Sears Point-Independence Point-Howard Well-Aztec I-8 interchange. ▪ In Red Cloud Mine area, reopen road between Black Rock-Red Cloud Wash and Arasta Wash. ▪ In California, reopen roads between Ogilby Road and State Hwy. 78 to the river. The recreational benefit of these roads was not assessed prior to their closure. ▪ Plan routes for different modes of recreation (i.e., so trail bikes don't conflict with cars). ▪ YFO should adopt a "closed unless posted open" OHV policy effective immediately and remaining during RMP revision.	153

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TABLE 1
SUMMARY OF PUBLIC COMMENTS BY ISSUE CATEGORY

Issue No.	Issue	Sub-Issue (if applicable)	Public Issue/Comment	Total Received
13	Travel Management	OHV	▪ Use of OHV is the best and sometimes only way to enjoy remote areas, especially for older or disabled people. ▪ Limit four-wheel-drive vehicles and ATVs to only certain roads and washes and the sand dunes because they damage the roads. ▪ Complete OHV route designation process and have a mix of areas closed to OHV use and limited to designated roads and trails. ▪ Identify OHV management policies and required signing and enforcement. ▪ Due to sensitive ecosystems and soils, should be no open OHV areas within planning unit. ▪ Limit OHV use as it impacts quiet, causes spread of exotic plants, erosion, wildlife harassment/ fragmentation, destruction of cultural sites, disruption of foraging and native vegetation, increase in risk of wildfire, impacts to Sonoran pronghorn and desert tortoise habitat. ▪ Concerned with OHV tracks along existing roads because their wheel width doesn't conform to ruts made by standard vehicles. ▪ All areas with wilderness characteristics should be managed under "closed" OHV designation. ▪ It isn't the OHVs that destroy the desert, it's only a small percentage of the users.	61
14	Airspace		▪ Need to develop at least one landing strip along the lower Colorado River for pilots to land in proximity to recreation uses. BLM could also attract developers for small airport. ▪ YPG needs to be protected from air encroachment. Pilots fly illegally in YPG airspace and land on their property because there is no designated airstrip.	3
15	Grazing Use		▪ Grazing is an important use for economic benefit. ▪ Because grazing has been administered by Phoenix Field Office, coordination with that office regarding any allotment changes is warranted. ▪ Grazing impacts Sonoran pronghorn and Sonoran desert tortoise habitat. ▪ Include full range of alternatives including no grazing, grazing at current use, and grazing reductions to ensure wildlife, watershed, vegetative, and soil health. ▪ Eliminate domestic grazing. ▪ Address impacts to ground nesting birds from grazing. ▪ Address grazing allotment plans and residual forage standards, stocking rates, grazing intensity, duration, timing, class of livestock, strategies to reduce grazing, if necessary. ▪ Establish protocols for livestock reduction during drought, including best management practices.	19
15 cont.	Grazing Use cont.		▪ Reference all pertinent guidelines in grazing plans. ▪ Address how grazing impacts problem of invasive, non-native vegetation. ▪ Because grazing has been administered by Phoenix Field Office, coordination with that office regarding any allotment changes is warranted.	19

NOTE: Where comments apply to more than one issue category, the comment is repeated in the appropriate categories.

TABLE 1
SUMMARY OF PUBLIC COMMENTS BY ISSUE CATEGORY

Issue No.	Issue	Sub-Issue (if applicable)	Public Issue/Comment	Total Received
16	Lands with Wilderness Characteristics		▪ In identifying wilderness characteristics, consider how protecting or managing for these characteristics will help previously impacted areas be restored to natural condition. ▪ Identify lands with wilderness character and protect them with special administrative designation and management and through a framework of multiple use conservation areas to preserve them. ▪ Preserving wilderness characteristics is best economic choice as it is less costly than development, maintenance, restoration, law enforcement of OHV, or restoration. ▪ Arizona Wilderness Coalition will be submitting proposals for lands containing wilderness characteristics for inclusion in EIS. ▪ Use definition of wilderness as outlined in Wilderness Act of 1964 for inventorying areas for wilderness characteristics. ▪ All areas with wilderness characteristics should be managed under "closed" OHV designation. ▪ Consider following areas for wilderness characteristics: BLM lands adjacent to Kofa NWR wilderness areas, Columbus Peak, Cortez Peak, all areas adjacent to existing YFO wilderness areas. ▪ Do not degrade wilderness characteristics in course of implementing any management action through the RMP without first analyzing possibility that they exist. ▪ Managing for wilderness characteristics creates new wilderness without congressional approval and in violation of congressional intent. ▪ Management of wilderness study areas should ensure protection of their wilderness values from destructive activities such as oil/gas development, logging, OHV, mining, etc. ▪ How will BLM work with the conservation community on implementing a monitoring and restoration plan?	71

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TABLE 1
SUMMARY OF PUBLIC COMMENTS BY ISSUE CATEGORY

Issue No.	Issue	Sub-Issue (if applicable)	Public Issue/Comment	Total Received
17	Special Designations		▪ How will BLM address route designations for areas with wilderness characteristics, ACECs, and other areas with special resources? ▪ Find all potential wilderness areas and designate accordingly. ▪ Protect lands with wilderness character with special administrative designation and management and through a framework of multiple use conservation areas to preserve them. ▪ Include assessment of additional ACECs in planning criteria to provide protection for sensitive plants/wildlife, including assessment of all State/Federally listed species for ACEC designation. ▪ Consider Sonoran pronghorn for ACEC designation as it is threatened by livestock grazing, road construction, OHV use. ▪ Designate Sonoran desert tortoise for ACEC as it is harmed by livestock grazing, OHV, other habitat destruction. ▪ Designation as wilderness would encourage a broader public attitude towards stewardship, usage, and interaction with land. ▪ Designating wilderness areas will only benefit the few who are fit enough to hike into remote areas. ▪ Norton's April 2003 settlement was unlawful and FLPMA gives BLM the authority to create wilderness study areas. ▪ Protection of wilderness quality lands can help fill mandates of FLPMA and provides a better balance of multiple uses as only 2.6 percent of BLM land is currently protected as wilderness. ▪ Consider supplemental values such as Sonoran pronghorn habitat, cultural sites, threatened and endangered species, unique plant assemblages, prehistoric/historic travel corridors, water resources, potential scientific sites, education, and scenic beauty. ▪ Designate the river corridor as a natural resource area, wildlife habitat, ACEC, etc. rather than general use/recreation area. ▪ Do not need further wilderness designation as there are numerous other wilderness areas available for people to visit. ▪ Open access to all areas designated as wilderness or monument. ▪ Should be no wilderness management prescriptions outside of designated wilderness. ▪ Protect current ACECs from land uses that conflict with their values (oil/gas, grazing, OHV).	65
18	Environmental Justice		▪ No comments were received for this issue.	0

NOTE: Where comments apply to more than one issue category, the comment is repeated in the appropriate categories.

TABLE 1
SUMMARY OF PUBLIC COMMENTS BY ISSUE CATEGORY

Issue No.	Issue	Sub-Issue (if applicable)	Public Issue/Comment	Total Received
19	Socioeconomics		▪ Without protecting local wilderness, local residents in the region could lose the income provided by ecotourism to the area. ▪ Loss of agricultural leases can have a negative impact on local agricultural economy. ▪ Agriculture on public land produces revenue for American people and reduces expenditure for other uses. ▪ Analysis should include consideration of economic benefits to local and regional economy through wildlife-related recreation and ecosystems services. ▪ Analysis should consider economic drain of livestock grazing on Federal agency and taxpayer money including cost of damage caused by non-native organisms introduced by grazing or oil/gas development. ▪ Preserving wilderness characteristics is best economic choice as it is less costly than development, maintenance, restoration, law enforcement of OHV or restoration. ▪ User fees only hurt the poor, people shouldn't have to pay to use their own land. ▪ Develop plan in coordination with AGFD to acknowledge economic value of wildlife species to local economies.	12
20	Law Enforcement (including Public Safety)		▪ Need more prosecution and fining of violators, such as for illegal dumping. ▪ There should be more employees or rangers to stop illegal dumping, vandalism, and illegal entry. Additional rangers especially needed during the crowded months of January and February. ▪ Use other people to police dump stations and trash so the rangers can do their jobs. ▪ Provide list of rules on camping and ATV riding regionally in gas stations, restaurants, grocery stores, etc. to keep people on trails and make rules more accessible. ▪ Use "do not litter" campaigns to help prevent illegal dumping. ▪ Will BLM work with other law enforcement agencies to address border issues?	29
21	Border Issues and Undocumented Immigrants		▪ Migration across the border has created challenges to the protection of natural resources. ▪ Will other agencies be mandated to consult with BLM and USFWS on environmental impacts as a result of their actions on the border? ▪ Immigrants are causing undesignated travel routes. ▪ Agriculture acts as a deterrent to illegal entry. If taken out of production, it would revert to underbrush and salt cedars and complicate Border Patrol efforts to secure the area.	29
22	Wild Horses and Burros		▪ Management should include an emphasis on wild horse/burro control. ▪ Water holes should be available to burros. ▪ Remove all wild horses and burros.	3

NOTE: Where comments apply to more than one issue category, the comment is repeated in the appropriate categories.

summary of overall comments. The "total received" column in Table 1 indicates how many times within public comment a particular issue was raised. This number does not correlate directly with either the total number of scoping responses or the total number of unique comments within those responses, as each comment often contained several different issues. For example, one comment stated "limit OHV use as it impacts the quiet of the desert and causes introduction and spread of exotic plants, erosion, wildlife harassment, and destruction of cultural sites." This single comment contained five different issues including transportation planning and access (OHV sub-issue), vegetation management, soils, fish and wildlife, and cultural resources. A full listing of all comments and responses received during the scoping period can be found in the comment summary table in Appendix B of the scoping report.

ISSUE 1: RIPARIAN AREAS, FLOODPLAINS, AND WETLANDS

1.1 PUBLIC ISSUE SUMMARY

Few public comments were received on this issue. Those that were received pertained to the protection of riparian and wetlands in general and from motorized uses. Importance was also placed on the wetland and riparian habitat along the lower Colorado River corridor.

1.2 BLM MANAGEMENT CONCERNS

- Control invasive species in riparian zones and wetlands;
- Manage water quality and contaminants;
- Manage for wildlife habitat for neotropical migratory birds; and
- Implement recovery plans in rivers and riparian areas while managing fuels, fires, and exotics.

1.3 AGENCY AND TRIBAL CONCERNS

- Tribe indicated an interest in continuation of cottonwood and willow pole planting habitat improvement projects.

1.4 PLANNING CRITERIA

Riparian areas, floodplains, and wetlands will be managed to protect, maintain, or improve existing functions to benefit water storage, groundwater recharge, water quality, and fish and wildlife values in appropriate locations within fiscal constraints. All management practices will be designed in accordance with the CWA, EO 11988 (Floodplain Management), EO 11990 (Protection of Wetlands), Colorado River Floodway Protection Act, and Arizona's Standards for Rangeland Health and Guidelines for Grazing Administration. Proposed decisions will be measured against the Arizona Standard for Rangeland Health for riparian areas, floodplains, wetlands and priority wildlife management areas that provide for biodiversity and protection and restoration of native species. Additional criteria are the LCR MSCP, priority wildlife habitat

management areas, existing activity plans, and the current Lower Colorado River Fire Management Plan.

1.5 ISSUES ADDRESSED ADMINISTRATIVELY

- Tribes want to continue being involved in cottonwood and willow pole planting habitat improvement projects.

ISSUE 2: SOIL, WATER, AND AIR QUALITY

2.1 PUBLIC ISSUE SUMMARY

Public issues focused on the protection and availability of water resources. Overuse of water was mentioned, as was allocation of water to various uses and adequacy of water supply for wildlife. Concern over the impact of drought to soil and water resources was mentioned, as was the contribution of roads and OHV use to erosion problems.

2.2 BLM MANAGEMENT CONCERNS

- Consider the effect of public uses on air quality, particularly the use of dirt roads with regard to PM_{10} non-attainment areas.

2.3 AGENCY AND TRIBAL CONCERNS

No agency or tribal concerns were mentioned for this issue category.

2.4 PLANNING CRITERIA

2.4.1 SOIL

Soils will be managed to protect long-term productivity. BMPs will be incorporated into other programs to minimize soil erosion and compaction resulting from management actions.

2.4.2 WATER QUALITY

Section 319 of the CWA obligates Federal agencies to be consistent with State Nonpoint Source Management Program Plans and relevant water quality standards. Section 313 requires compliance with State Water Quality Standards. BLM will coordinate with the ADEQ regarding their TMDL program and other relevant water quality programs. BLM will incorporate applicable BMPs or other conservation measures for specific programs and activities into the RMP. Water quality will be maintained or improved in accordance with State and Federal standards.

2.4.3 AIR QUALITY

Maintain and enhance air quality and visibility in a manner consistent with the CAA. Under the Clean Air Act, BLM administered lands were given a Class II air quality classification unless reclassified by the State. Wilderness Areas must be classified as Class I or Class II. This classification allows moderate deterioration associated with moderate, well-controlled industrial and population growth. Proposed decisions within the influence zone of the planning project that may affect non-attainment areas, including the Maricopa and Yuma counties PM_{10} non-attainment areas, will be assessed for conformance with air quality standards.

ISSUE 3: VEGETATION MANAGEMENT

3.1 PUBLIC ISSUE SUMMARY

Many of the concerns expressed by public comment focused on the spread of exotic and non-native plants from a variety of land uses including OHV use, roads, and grazing. Comments also stated that the area is valuable for seed banking and resources. Other concerns focused on the application of herbicides, and various impacts from grazing, drought, and fire management.

3.2 BLM MANAGEMENT CONCERNS

- Establish guidelines for project level work to be completed in accordance with the Arizona Native Plant Law.
- Determine if vegetative products within the two to five inches of precipitation zone are suitable for public use or sale (e.g., firewood, cactus skeletons, native wood/plants).
- Determine if there should be campfire restrictions for the protection of native vegetation.
- Determine decision criteria for revegetation and availability of irrigation water for revegetation.
- Continue to identify, map, and treat invasive species, including noxious weeds, as a management priority within the planning area.

3.3 AGENCY AND TRIBAL CONCERNS

- Continue giant salvinia removal along the Colorado River.

3.4 PLANNING CRITERIA

Vegetation will be managed to achieve desired plant communities (considering the ecological site potential) that provide for biodiversity; protection and restoration of native species; and non-consumptive uses including plant protection (fuel collection), visual quality, and watershed protection. FLPMA requires that public lands be managed under the principles of multiple use and sustained yield. The desired plant communities will provide critical wildlife habitat, as well as forage for livestock and wildlife. Plant maintenance, watershed protection and stability, and wildlife habitat needs will be provided for. Forage will be allocated to support wildlife at population levels determined through consultation with the AGFD. Forage on suitable rangeland

will be allocated for domestic livestock grazing based on Arizona's Standards for Rangeland Health and Guidelines for Grazing Administration and may include provisions for hazardous fuels reduction and habitat restoration.

There are several treatment methods and Standard Operating Procedures that would be used in a vegetation treatment program. BLM policies and guidance for public land treatments would be followed in implementing all treatment methods. Many guidelines are provided in manual Section 1740, BLM Arizona's Standards for Rangeland Health and Guidelines for Grazing Administration, Programmatic documents such as BLM's *Final Environmental Impact Statement, Vegetation Treatment on BLM Lands in Thirteen Western States* (May 1991), and other general and specific program policy, procedures, and standards pertinent to implementation of renewable resource improvements.

3.5 ISSUES ADDRESSED ADMINISTRATIVELY

- Add planning criterion that requires all alternatives be biologically and ecologically sustainable and meets the needs of native plants/wildlife.

ISSUE 4: FISH AND WILDLIFE

4.1 PUBLIC ISSUE SUMMARY

Fish and wildlife issues included impacts and habitat fragmentation from OHV use and development. Impacts to wildlife, specifically ground nesting birds and forage, from grazing was also mentioned. Several comments were received regarding water catchments, including the desire that these be managed by BLM, concern that there are not enough catchments, and concern that some catchments are sometimes empty and others are fenced, making them unavailable for use by all wildlife. A few comments emphasized the benefit of agriculture to wildlife for food resources, and one comment expressed concern over policies to control predators and rodents. There were also requests to provide wildlife corridors between this planning area and adjacent areas.

4.2 BLM MANAGEMENT CONCERNS

- Identify what indicators or limits of acceptable change will be used to determine when wildlife populations are being impacted to an unacceptable degree.
- Integrate habitat management with other resource programs to minimize impacts on wildlife species and their habitats while still providing for other uses on the public lands.
- Evaluate the use of wildlife water catchments.
- Determine what types of management actions are appropriate in priority and general wildlife habitats.
- Identify appropriate mitigation measures for impacts to priority wildlife habitats.
- Incorporate State and BLM strategic plans for fish and wildlife into the RMP.
- Assess potential need and proper location for artificial fish habitat.

- Protect backwater habitat.
- Promote native fish habitat populations.
- Assess the need to limit or close public access to promote spawning or critical fish habitat.
- Address BMPs for aquatic non-native invasive species removal within fish habitat.

4.3 AGENCY AND TRIBAL CONCERNS

- Continue managing for wildlife values.
- There should be more proactive wildlife management.
- AGFD would like to develop, review, and coordinate on RMP with BLM.
- Activities of the AGFD to maintain and enhance wildlife resources and related recreation should be considered necessary, authorized, and administrative activities in any land use allocation.
- AGFD supports a balanced approach in management to provide both conservation and recreational use opportunities.

4.4 PLANNING CRITERIA

Fish and wildlife habitat will be managed to maintain and/or improve the existing habitats including priority wildlife habitat. Management actions should minimize the extent of disturbance to fish and wildlife habitat. Vegetation management practices would be considered to achieve desired future conditions. In addition, management actions will incorporate existing BLM national strategic plans, such as Fish and Wildlife 2000 and others.

4.5 ISSUES ADDRESSED ADMINISTRATIVELY

- Add planning criterion that requires all alternatives be biologically and ecologically sustainable and meets the needs of native plants/wildlife.
- Management should include close coordination with USFWS, CDFG, and AGFD.
- Ensure the RMP includes recognition of the LCR MSCP and BLM is a member of that planning process.
- BLM should manage the land and AGFD should manage the wildlife, including hunting.
- Cooperative habitat improvements projects should continue between BLM and AGFD.

4.6 ISSUES NOT WITHIN BLM JURISDICTION

- BLM should take over management of the water catchments.

ISSUE 5: THREATENED, ENDANGERED, AND SPECIAL STATUS SPECIES

5.1 PUBLIC ISSUE SUMMARY

Comments received for this issue focused on the Sonoran pronghorn, Sonoran desert tortoise, desert bighorn sheep, and FTHL. Impacts from OHV use, roads, and grazing was mentioned. It was requested that the Sonoran pronghorn and desert tortoise habitat be designated as an ACEC. General comments stated that the area should be managed to prevent future Federal listings of species and include rigorous monitoring of sensitive species.

5.2 BLM MANAGEMENT CONCERNS

- Identify the types of projects that are appropriate within special status species habitat.
- Identify the types of mitigation that should be considered for special status species protection.
- Determine if designation of potential, suitable, and occupied Southwestern willow flycatcher habitat is necessary to protect species.
- Implement and incorporate recovery plans and conservation agreements and their goals, objectives, and actions, as applicable, into the RMP.
- Implement recovery and conservation plans for special status species through management practices.
- Actions, allocations, special designations, and prescriptions will be utilized as needed to protect designated threatened and endangered species critical habitat.
- Consider impacts to razorback sucker critical habitat.
- Explore reintroduction of Gila topminnow, desert pupfish, razorback sucker, and bonytail chub.

5.3 AGENCY AND TRIBAL CONCERNS

- Continue threatened and endangered species management.

5.4 PLANNING CRITERIA

Laws, regulations, policies, and guidelines followed for special status species management will include, but are not limited to, Arizona Standards for Rangeland Health and Guidelines for Grazing Administration, BLM Manual 6840, Desert Bighorn Sheep Range Wide Plan and Sonoran Desert Tortoise Range Wide Plan, ESA, EO 13112, FLPMA, NEPA, Public Rangelands Improvements Act, Sikes Act, and the TGA.

Management actions authorized, funded or implemented by BLM will be done so as not to jeopardize the continued existence of federally listed threatened or endangered plant or animal species or result in the destruction or adverse modification of critical habitat. Candidate species, species proposed for Federal listing, and BLM and State sensitive species will be given the same consideration as listed species. The intent is to recover listed species and maintain healthy

populations of all other species and therefore avoid the need for further listing of any species as threatened or endangered.

In addition, BLM adheres to BLM's Manual 6840, which outlines the conservation management procedures of threatened and endangered species and the habitat on which they depend; ensures that all actions that BLM authorizes, funds, or implements comply with the ESA; requires cooperation with the USFWS in the planning and recovery of threatened and endangered species; states the BLM policy for managing special status candidate species. BLM also will follow terms and conditions implemented by Biological Opinions and Conservation Agreements when making special status species management decisions.

5.5 ISSUES ADDRESSED ADMINISTRATIVELY

- Add planning criterion that requires all alternatives to meet ESA and other protection statutes and include rigorous monitoring of sensitive species.
- Will other agencies be mandated to consult with BLM and USFWS on environmental impacts as a result of their actions on the border?

ISSUE 6: CULTURAL AND PALEONTOLOGICAL RESOURCES, AND NATIVE AMERICAN CONCERNS

6.1 PUBLIC ISSUE SUMMARY

The cultural value, importance, and interest of the area were frequently mentioned in public comments. Cultural features specifically mentioned include the intaglios, geoglyphs, old homestead sites, old mines, Patton's army sites, Sears Point, and historic trails. These features were discussed in the context of general importance as well as being interesting recreation destinations. Many comments mentioned protection of cultural features, but some comments suggested measures such as fencing cultural sites while others expressed a desire for protection without closing public access. OHV use was specifically mentioned as impacting cultural sites. Volunteers and site stewards were also suggested as protection measures.

6.2 BLM MANAGEMENT CONCERNS

- Establish measures needed to protect cultural resources from vandalism, OHV damage, other uses, and natural deterioration.
- Identify trade/exchange lands that BLM will attempt to acquire in order to protect significant cultural resources.
- Identify and evaluate areas containing or likely to contain vertebrate or noteworthy occurrences of invertebrate or plant fossils.
- Determine sensitivity of paleontological resources prior to authorizing surface disturbing activities.

- Develop management recommendations to promote the scientific, educational, and recreational uses of fossils.
- Identify and mitigate threats to paleontological resources, as appropriate.
- Establish link between former RMP and current RMP for proper name to reference Sears Point/Gila River Cultural ACEC.
- Determine how to effectively manage increasing cultural heritage tourism while protecting cultural resources.
- Consider decisions that will protect areas with traditional cultural significance to Native American Tribes.

6.3 AGENCY AND TRIBAL CONCERNS

- Establish a host site at Sears Point (Gila River Cultural ACEC) for cultural resource protection.
- Continue protection of historic and cultural sites.

6.4 PLANNING CRITERIA

Cultural and paleontological resources will be managed to maintain or enhance significant scientific, educational, and recreational values. Cultural sites that meet NRHP criteria will be protected and nominated for inclusion on the Register.

ISSUE 7: FIRE MANAGEMENT

7.1 PUBLIC ISSUE SUMMARY

There were few public comments received regarding this issue. Comments focused primarily on how and where prescriptive burns would be used, and how the area would be revegetated including special seed mixes and noxious weed control. Concern was expressed that roads increase the risk of wildfire and that livestock should not be allowed in a burn area for two years following a fire.

7.2 BLM MANAGEMENT CONCERNS

Management concerns will be identified during the Management Situation Analysis phase.

7.3 AGENCY AND TRIBAL CONCERNS

- Several agencies indicated an interest in future projects related to hazardous fuel reduction and wildfire suppression.
- Support continuation of programs for hazardous fuel reduction, wildfire suppression and prevention, and removal of salt cedar.

7.4 PLANNING CRITERIA

Fire management prescriptions will be consistent with the Federal Wildland Fire Policy, National Fire Plan, and the Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. Fire suppression will be accomplished with the least amount of surface disturbance and to protect significant cultural or paleontological values. Public lands and resources affected by fire will be rehabilitated in accordance with the multiple use objectives identified for the affected area, subject to BLM policies and available funding.

ISSUE 8: HAZARDOUS MATERIALS AND SOLID WASTE

8.1 PUBLIC ISSUE SUMMARY

Public comments received on this issue related to trash and RV septic waste. One issue involved RVs unloading their septic tanks on the land. Other comments were received regarding the need to clean up and better maintain the confluence and problems with illegal dumping. All of these issues can be addressed through current management.

8.2 BLM MANAGEMENT CONCERNS

- Consider risk to visitors and general public from unlocated unexploded ordnances on public lands administered by YFO.
- Work with adjacent military installations to consider what management actions are needed to protect public safety.
- Identify and consider safety issues at historic mine sites, which are often popular visitor destinations.
- Consider appropriate management of sites and areas that pose a threat to public health and safety, whether man-made or natural.
- Address abandoned mine lands and emptying of septic tanks on BLM land.

8.3 AGENCY AND TRIBAL CONCERNS

- Control illegal dumping and hazardous materials.

8.4 PLANNING CRITERIA

Management actions will consider BMPs, which protect the public to the greatest extent through existing policies. Laws, regulations, policies, and guidelines followed for hazardous materials will include, but not be limited to FLPMA, NEPA, and the Resources Conservation and Recovery Act of 1986 (RCRA).

The plan will develop a framework to address hazardous sites and activities, incorporating requirements to meet the CAA, CWA, and other environmental laws and regulations, as well as consider other potential hazards.

The YFO will seek out developing a MOU with MCAS–Yuma and YPG to address safe disposal of any UXO discovered on public lands.

8.5 ISSUES ADDRESSED ADMINISTRATIVELY

- RVs dump their tanks on the land creating a biohazard and fly infestation.
- There is a problem with illegal dumping at 29E where the old dairy was.
- The confluence needs to be cleaned up and maintained in a safe fashion.

ISSUE 9: RECREATION

9.1 PUBLIC ISSUE SUMMARY

Due to the nature of the questions provided by BLM on the comment card and comment form, many people relayed what they felt the most important recreation activities were on BLM land. These recreation uses include hunting, OHV and other motorized use, camping, rock hunting/collecting, fishing, photography, hiking, wildlife viewing, scientific research (geologic research, in particular, was mentioned), shooting, and many other uses. Comments were received indicating the need to maintain a multiple use management approach.

Other recreation comments were received regarding the need to maintain camping areas, including the LTVAs. Several comments were received on horse riding trails and the belief that horse riders should not be limited in the trails they can ride, a preference both for and against shooting in the area, and requests for trails designated for certain uses. Squaw Lake boat ramp and Hippy Hole were specifically mentioned for improvements or additional amenities. Comments also stated that there should be no fees for the use of public land.

Education was also mentioned in comments. People felt that access to the area and its wildlife and habitat provided important educational opportunities for themselves and future generations. Comments also emphasized the importance of educating visitors about the area to encourage stewardship and appreciation of the land. Several comments were received about the scientific research and learning opportunities offered by the area, particularly for seed resources and geology.

9.2 BLM MANAGEMENT CONCERNS

- Identify and allocate sites to scientific, recreational, educational, and traditional uses.
- Identify sites for development of interpretive uses.
- Evaluate the recreational potential at Gilmore’s and Walters camps.
- Review new special recreation permits and concession leases and vendor permits for feasibility and consistency with existing land use plans.

- BLM management plan will consider establishing designated routes for a wide variety of recreational use (e.g., hiking, biking, equestrian, and OHV).
- Determine if there should be campfire restrictions.
- Identify methods for joint management and funding for recreational resources and maintenance of existing programs.
- Shortfalls in funding may jeopardize ability to develop and manage new and existing recreation resources.
- Examine management opportunities utilizing BLM recreational strategy.
- Examine ways to minimize potential conflicts between motorized and non-motorized recreational users.
- Consider management of commercial recreational uses, special recreation permits, and other organized events.

9.3 AGENCY AND TRIBAL CONCERNS

- Concerns were expressed regarding changes in recreational sites location and status with regard to State Highway access and improvement and proximity to national wildlife refuges.

9.4 PLANNING CRITERIA

Laws, regulations, policies, and guidelines followed for recreation management will include, but not be limited to, FLPMA, ADA, Land and Water Conservation Fund, 43 CFR 8300, BLM Recreation Management regulations, 43 CFR 2930, BLM Special Recreation Permits regulations, BLM Manual 8300 – Recreation Management, and the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration.

The RMP/EIS will set forth a framework for managing recreational and commercial activities in order to maintain existing natural landscapes and to provide for the enjoyment and safety of the visiting public. The lifestyles of area residents, including activities of grazing, hunting, and motorized use and recreation, will be considered in the plan.

Existing designated recreation sites would be carried forward and evaluated for additional facilities. Other public lands would also be evaluated for their suitability for recreational development.

9.5 ISSUES ADDRESSED ADMINISTRATIVELY

- Permits for horse rides should be issued at least two weeks before a ride instead of at the last minute.
- There should be no fees for use of public land.

9.6 ISSUES NOT WITHIN BLM JURISDICTION

- Minimize use by gun enthusiasts.
- Hunters disrupt quiet of area.

- Lands should remain open to all legal shooting in Arizona including use of legally owned Class III weapons.

ISSUE 10: VISUAL RESOURCES

10.1 PUBLIC ISSUE SUMMARY

Comments regarding visual resources specifically were very limited. However, numerous comments expressed an appreciation and value for the open spaces and scenery of the area, and the desire that the open spaces and beauty of the area be maintained for the enjoyment of both current and future generations.

10.2 BLM MANAGEMENT CONCERNS

- VRM classification needs to be re-evaluated for the entire field office with emphasis on special designation areas.

10.3 AGENCY AND TRIBAL CONCERNS

- Consider closing areas to camping near NWR to reduce visual impact.

10.4 PLANNING CRITERIA

VRM classification will be conducted to address the public's concerns about open space and natural vistas. Some areas may be subject to special measures to protect resources or reduce conflicts among uses.

ISSUE 11: LAND TENURE AND USE AUTHORIZATIONS

11.1 PUBLIC ISSUE SUMMARY

Numerous comments were received regarding land tenure and use authorizations and generally covered one of three categories: (1) general policy regarding disposal or exchange, (2) support for disposal, exchange, or lease of specific areas, and (3) agricultural use. Many comments expressed concern over further disposals or exchanges, requesting no further or only limited disposals or exchanges. Some comments stated that wildlife and habitat be considered during potential land exchanges. Specific areas mentioned for disposal/exchange or lease include Harvey's Fishing Hole, Martinez Lake, area along the Colorado River, and BLM land within Quartzsite town limits. Several comments were received supporting agricultural use in the area for a variety of reasons and expressing concern over potential termination of agricultural leases.

One response discussed utility corridors and expressed a need for future utility corridors to be identified in the plan, but that there should be no amendments for future corridors. The comment also stated that existing corridors should be used instead of new ones.

11.2 BLM MANAGEMENT CONCERNS

- Determine if existing and proposed corridors are consistent with the WUG Corridor Study.
- Determine if the YFO corridors align/coordinate with adjacent BLM field office corridors, and if corridors do not align, develop mitigation recommendations.
- Identify BLM's role in educating the public about major ROW Corridors.
- Determine presence or absence of Desert Land Entries in YFO, including Indian allotments.
- Assess lands for disposal, acquisition, and/or exchange to benefit or promote threatened and endangered species and/or cultural resources.
- Evaluate appropriate locations for R&PP leases based on community and local needs.
- Identify need for establishing additional communications sites.
- Review all land classification/withdrawals within YFO.
- Identify any and all trespass on public lands for management action. Determine how trespass will be addressed.
- Coordinate with minerals assessment to ensure any and all split estate issues are resolved.

11.3 AGENCY AND TRIBAL CONCERNS

- Review all agricultural lease stipulations in order to consider selection of crop types for law enforcement and public safety.
- Review requests for potential expansion of existing military installations. Evaluate in-holdings within YPG and BMGR.
- Evaluate all land tenure adjustments, including those adjacent to wildlife refuges and military installations.
- Consider land use authorizations to support future military training exercises.
- Evaluate compatibility and location of proposed wind farms with military air traffic.
- Consider needs for military communications sites.
- Concerns were expressed regarding Gila River Confluence ownership and coordination with multiple agencies.

11.4 PLANNING CRITERIA

11.4.1 REALTY/LAND TENURE

Conditions will be identified that warrant the removal or withdrawal of certain public lands from multiple use, such as for public safety or protection of special uses and resources. Withdrawals designate public lands for a particular project, purpose or use. Normally, the land is closed to entry under all or some of the public land laws including the mining law. Criteria for identifying lands available or not available for land entry, including under the Desert Land Entry Act, will be developed. There will be no net loss of lands or interests in lands along the Colorado River. YFO will follow recommendations of Communication Site Management Plans, National Wind EIS, and BLM Instructional Memoranda.

A. Land Use Authorizations

Public lands will generally be available for concessions, leases, and ROWs including but not limited to transportation and ROW Corridors, subject to NEPA evaluation, except where specifically prohibited by law or regulation or in areas specifically identified for avoidance or exclusion to protect significant resource values. Land use authorizations are to avoid areas of special management areas and designations such as priority wildlife habitat, special status species management areas, ACECs, Wilderness, and cultural areas.

B. Renewable Energy Sites

New renewable energy sites, including wind, biomass, and solar energy, will be considered based on established criteria, procedures, and policy, in association with industry demand and resource protection objectives. New locations for renewable energy sites will also consider environmental quality, economic efficiency, security, safety, and good engineering and technological practices. Decisions will consider preferred locations and exclusion areas to protect significant resource values.

11.5 ISSUES ADDRESSED ADMINISTRATIVELY

- Pratt agricultural lease is valuable part of hybrid seed program and is one of few locations in Southwest that can produce Tropical Cauliflower.

11.6 ISSUES NOT WITHIN BLM JURISDICTION

- More land should be opened along Martinez Lake for boat ramps, long-term home leases, camping, and concessionaires.

ISSUE 12: MINERAL RESOURCES

12.1 PUBLIC ISSUE SUMMARY

Comments received on this issue either supported or opposed mining and resource development. Issues included statements that mining and development of natural resources are economically important. Others comments stated that there should be more oversight of mining, some alternatives should include no new oil/gas leases, there needs to be restoration of mining and related toxins, and all consumptive uses should be phased out.

12.2 BLM MANAGEMENT CONCERNS

- Determine mineral potential and evaluate areas to consider for mineral withdrawal.
- Determine if currently withdrawn areas should be opened to mineral entry.
- Identify areas of low, medium, and high potential for oil and gas development.
- Determine areas that should be closed to oil and gas leasing due to resource compatibility and sensitivity.
- Develop reasonable foreseeable development scenario for oil, gas, mineral material sales, and mining law as needed to support community infrastructure and growth.

- Follow directives within the Energy, Policy and Conservation Act (2000).
- Evaluate socioeconomic impacts of sand and gravel material sales and statewide need for sand and gravel material sales within YFO. Promote competitive sand and gravel award process.
- BLM will utilize other management methods to avoid surface management.
- Coordinate with minerals assessment to ensure any and all split estate issues are resolved. Ensure that sub-surface jurisdictional issues surrounding split estate parcels are addressed.
- Formulate management strategy for trespass violations.
- Mining claim use and occupancy authorizations should be considered as directed by 43 CFR 3715.
- Determine policy for management of split estate lands, particularly where BLM manages the surface but the sub-surface is in non-Federal ownership.
- Consider general requirements for protecting resource values of the public lands, including stipulations and construction and/or operating standards to apply to surface disturbing activities.

12.3 AGENCY AND TRIBAL CONCERNS

- Evaluate mineral material sales, which support State Highway improvement projects. Mineral resources provide important benefits to society and the economy. Ensure adequate mineral assessment and economic evaluation.

12.4 PLANNING CRITERIA

Minerals management will be consistent with the General Mining Law of 1872 (as amended), FLPMA, Mining and Minerals Policy Act, National Materials and Minerals Policy, Research and Development Act, and current BLM mineral resources policy. Lands open to salable, leasable, and locatable minerals will be identified in the plan. Areas within the planning area may also be subject to constraints to surface use.

ISSUE 13: TRAVEL MANAGEMENT

13.1 PUBLIC ISSUE SUMMARY

Many public comments were received regarding travel management. A frequently stated issue was access with many users preferring no further restrictions through road closures or Wilderness designation. Another issue was the request for currently closed roads to be reopened. Other issues include a desire for route designation to manage routes created by lack of designation and illegal immigrants, the belief that public land should be publicly accessible, and the hope that current access will remain for future generations to enjoy the land. Other comments requested that there be no new roads established.

Issues with OHV use include damage to natural resources, wildlife, cultural resources, and existing roads; lack of designation; lack of signing and enforcement; and the need to limit OHV

to certain or designated areas. OHV supporters feel that OHV is the only way to enjoy remote areas, especially for older or disabled users.

13.2 BLM MANAGEMENT CONCERNS

- A route signing policy needs to be established.
- Determine management actions needed for new routes, including but not limited to use specifications, signing, vegetation management, and routine maintenance.
- Determine if YFO designated routes align and coordinate with adjacent BLM field offices and other adjacent jurisdictions.
- Identify BLM's role in educating the public about and managing designated route systems.
- Determine what level of maintenance should be provided on roads to maintain access and to protect both public safety and natural and cultural resources.
- Address access, easements, or ROWs across private lands in order to secure access to public lands.
- Consider providing additional motorized access for those who are unable to walk long distances.
- Consider how types of vehicle uses, including competitive events, races, and challenge courses should be managed.

13.3 AGENCY AND TRIBAL CONCERNS

- Coordinate proposed location of recreational hiking trails on or around Telegraph Pass.
- Consider proper placement of OHV designated routes near national wildlife refuges.
- Resolve illegal use and entry of OHV from BLM routes to national wildlife refuge.
- AGFD recognizes need to assess travel routes in key areas due to impacts to wildlife by OHV use and habitat fragmentation by roadways.
- AGFD wants to be involved during route planning/designating process to identify important areas for fish and wildlife resources and ensure appropriate access for wildlife-related recreation.
- Incorporate transportation needs into planning process.
- Would like to see land remain open to public use without extensive restrictions.

13.4 PLANNING CRITERIA

BLM will manage motorized and other access on the public lands in accordance with existing law, EOs, regulation, and policy. Road and trail access guidance will be incorporated into every RMP to ensure public and resource needs are met. The YFO will designate OHV use areas as open, closed, or limited use. A network of roads and trails will be designated for all limited areas. BLM will utilize the route evaluation tree as adopted by the Arizona State Office. This process will require an interdisciplinary approach as it affects several key resources. BLM will strive to coordinate route designations with surrounding jurisdictions and neighboring field offices.

13.5 ISSUES NOT WITHIN BLM JURISDICTION

- In KOFA, reopen Slumgullion Pass and road from Queen Canyon to Willbanks Road.
- Remove or unlock gate between Imperial and Cibola NWR.

ISSUE 14: AIRSPACE

14.1 PUBLIC ISSUE SUMMARY

Airspace issues included the need for a landing strip along the lower Colorado River for private pilot access to recreational uses, the concern for illegal plane landing on the YPG, and the need to close the dirt road northeast of Martinez Lake because it is being used as a landing strip and is unsafe for such use.

14.2 BLM MANAGEMENT CONCERNS

- Consider appropriate management of resources and uses relative to overflights, as commercial and private overflights are a growing use of public lands.

14.3 AGENCY AND TRIBAL CONCERNS

- Want continuous access to military training routes (airspace).

14.4 PLANNING CRITERIA

The 1990 Arizona Desert Wilderness Act, which established the existing Wilderness Areas in the YFO, provided that these Wilderness designations were not to interfere with the continuing use of existing military training areas, modification of those military training areas, or the development of new low-level routes needed to support military training missions.

14.5 ISSUES NOT WITHIN BLM JURISDICTION

- Dirt road northeast of Martinez Lake is used as landing strip and should be closed due to safety concerns (not maintained, too close to Cibola Range, no security, obstructions in violation of Federal Aviation Administration rules).
- YPG needs to be protected from air encroachment. Pilots fly illegally in YPG airspace and land on their property because there is no designated airstrip.

ISSUE 15: GRAZING USE

15.1 PUBLIC ISSUE SUMMARY

Grazing issues raised included the statements that grazing provides an important economic benefit, and the need to coordinate grazing allotments with BLM Phoenix Field Office. Other

comments were received on the impacts of grazing to Sonoran pronghorn, desert tortoise, watershed, vegetation, invasive vegetation, soil, and during drought. It was requested that grazing allotment plans be very specific in terms of standards, stocking rates, and other standards including strategies to reduce grazing if necessary.

15.2 BLM MANAGEMENT CONCERNS

- Evaluate whether and where certain lands are available for grazing.
- Consider closing ephemeral allotments that have not been grazed in 10-15 years.
- Unauthorized grazing use is a problem.
- Evaluate existing and potential range improvements, including maintenance, to determine if they are compatible with land management goals.
- Re-evaluate the grazing classification for perennial and ephemeral (i.e., seasonal) allotments.
- Consider the application of the ephemeral rule to grazing on public lands.

15.3 AGENCY AND TRIBAL CONCERNS

- Open range areas and cattle guards are within close proximity to State Highways.
- Grazing allotments are located near national wildlife refuges. Trespass livestock is a concern.

15.4 PLANNING CRITERIA

BLM will manage grazing through existing laws, regulations, and policies including the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration. BLM will provide for livestock management in an environmentally sensitive manner consistent with resource management objectives, including achieving desired plant communities, and land use conditions. Proposed decisions will determine if allotments are available or unavailable to grazing in accordance with the TGA and, if available, in what manner. Decisions will include a strategy for ensuring that proper grazing practices are followed while preserving habitats for sensitive plant and wildlife species. Appropriate BMPs will be followed to protect rangeland resources and, where necessary, to mitigate any conflicts with other uses and values. Administrative actions to assure compliance with existing permit/lease requirements, to modify permits and leases, to monitor and supervise grazing use, and to remedy unauthorized grazing use will continue.

ISSUE 16: LANDS WITH WILDERNESS CHARACTERISTICS

16.1 PUBLIC ISSUE SUMMARY

The identification of lands with wilderness characteristics was a frequently mentioned issue. Some commenters want lands with wilderness characteristics identified and protected and closed to OHV use. Specifically mentioned areas for identification include BLM lands adjacent to Kofa NWR Wilderness Areas, Columbus Peak, Cortez Peak, and all areas adjacent to existing YFO Wilderness Areas. Another public issue was the opposition to managing for wilderness

characteristics, and the statement that managing for wilderness characteristics essentially creates new Wilderness in violation of congressional intent.

16.2 BLM MANAGEMENT CONCERNS

- Consider wilderness characteristics when making land and resource allocations.

16.3 AGENCY AND TRIBAL CONCERNS

No agency or tribal concerns were identified for this issue.

16.4 PLANNING CRITERIA

Consistent with BLM policy, the Secretary of the Interior letter to Senator Robert Bennett (dated April 11, 2003), and the settlement in the case of Utah v. Norton (dated April 14, 2003), BLM has the authority to discuss and incorporate wilderness values into the land use plan, in accordance with the public process incorporated in all land use planning efforts. Thus, BLM is committed to listening to public input through the land use planning process and, where appropriate, managing specified areas of land for wilderness values. However, BLM has no authority to establish new wilderness study areas or to report such areas to Congress. BLM can protect areas in their natural state using a wide range of land use tools other than the wilderness study area designation process. The BLM will review, through this planning process, lands within the planning area that may possess remote or primitive characteristics.

16.5 ISSUES NOT WITHIN BLM JURISDICTION

- Norton's April 2003 settlement was unlawful and FLPMA gives BLM the authority to create wilderness study areas.

ISSUE 17: SPECIAL DESIGNATIONS

(including existing Wilderness Areas, NRTs, NHTs, Back Country Byways, and ACECs)

17.1 PUBLIC ISSUE SUMMARY

Issues focused on the need to identify and protect new and existing special areas in general and from activities including oil/gas development, logging, mining, OHV, grazing, and road construction. ACEC designation was requested for Sonoran pronghorn and desert tortoise habitat. It was also requested that the river corridor be designated as a natural resource area rather than general use.

Comments were also received in opposition to Special Designations stating these designations benefit only those few who are fit enough to hike into them to enjoy them, there should be no further designations as there are numerous other Wilderness Areas available in the area, and all currently designated areas should be opened for access.

17.2 BLM MANAGEMENT CONCERNS

- Identify partners for NRTs and NHTs.
- Evaluate potential for designating additional NRTs, NHTs, State recreation trails, and Back Country Byways.

17.3 AGENCY AND TRIBAL CONCERNS

- Concern that additional restrictive management or allocations will hinder AGFD ability to propose/implement wildlife management activities.
- The RMP must be clear when describing management allocations.
- AGFD supports designating key habitats as long as future conditions acknowledge wildlife as a management priority and prescriptions allow for both wildlife management and reasonable public access.
- Prefer to not have additional closures or withdrawals on public lands.

17.4 PLANNING CRITERIA

17.4.1 WILDERNESS AREAS

Wilderness Areas are designated by Congress and are managed according to the *Wilderness Act of 1964*, the *Arizona Desert Wilderness Act of 1990*, regulations for Wilderness management at 43 CFR 6300, BLM Manuals 8560 and 8561, BLM Handbook H-8560-1, interim operations plans currently in effect for range, wildlife, and fire management in Wilderness, and Wilderness Management Plans. The land use plan will not address reducing or eliminating existing Wilderness Areas, changing existing Wilderness boundaries, proposing new Wilderness Areas, or allowing motor vehicle or other use of mechanical transportation in any Wilderness Area not already authorized.

17.4.2 AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

ACECs will be designated where special management attention is required to protect historical, cultural, or scenic values, natural resources or processes, or human life and safety. Management requirements for ACECs will be identified in the plan. YFO is looking at selecting areas to consider for new designation (i.e., Dripping Springs and Colorado River Limitrophe), as well as expanding the existing Sears Point. ACECs should not be used as a substitute for Wilderness designation when an area otherwise meets the criteria for Wilderness.

ISSUE 18: ENVIRONMENTAL JUSTICE

18.1 PUBLIC ISSUE SUMMARY

There were no comments received regarding environmental justice.

18.2 BLM MANAGEMENT CONCERNS

Management concerns will be identified during the Management Situation Analysis phase.

18.3 AGENCY AND TRIBAL CONCERNS

No agency or tribal concerns were identified for this issue.

18.4 PLANNING CRITERIA

The lifestyles of area residents will be considered in the plans for low income and minority populations.

ISSUE 19: SOCIOECONOMICS

19.1 PUBLIC ISSUE SUMMARY

Many of the comments regarding socioeconomics focused on the issue of potential income or loss of income from various uses. This includes income from agricultural leases to the local agricultural economy and BLM (through lease) and economic benefits of ecotourism and the potential income loss if Wilderness is not protected. Other issues included the economic drain of grazing and the economic benefit of managing for wilderness characteristics rather than the more costly development, maintenance, restoration, and law enforcement required by OHV use. One comment pertained to the inability of some lower-income users to pay user fees, and that user fees impact the lower income users more than other users.

19.2 BLM MANAGEMENT CONCERNS

Management concerns will be identified during the Management Situation Analysis phase.

19.3 AGENCY AND TRIBAL CONCERNS

- Identify socioeconomic conditions for the local community related to the adjacent Imperial Sand Dunes.

19.4 PLANNING CRITERIA

Management actions will be evaluated for socioeconomic impacts by using the “Economic Profile System” and other tools such as IMPLAN.

19.5 ISSUES ADDRESSED ADMINISTRATIVELY

- Area should be managed through a central office with local representatives. People of La Paz County have no way to communicate with BLM individual in person.

ISSUE 20: LAW ENFORCEMENT (INCLUDING PUBLIC SAFETY)

20.1 PUBLIC ISSUE SUMMARY

Law enforcement issues primarily focused on the need for more staff to better monitor the area, including dumping and trash stations, and stronger prosecution and fining of violators for activities such as illegal dumping, vandalism, illegal entry, and hunters taking game over the legal limit.

20.2 BLM MANAGEMENT CONCERNS

- Determine which uses are incompatible due to public safety issues. Target shooting, for example, is a legitimate public lands use but may place nonparticipants at risk, particularly in areas of heavy use.
- Consider the increasing concern regarding undocumented immigrant traffic and smuggling activities on the public lands relative to public and employee safety.
- Determine what level of maintenance should be provided on roads to maintain access and to protect both public safety and natural and cultural resources.
- Consider the effects of hazardous sites, including those created by illegal dumping, on public health and safety.
- Consider outreach programs that provide visitor information including public safety, resource protection, and appropriate uses.
- When developing resource management objectives, consider the need of an enforcement aspect, including developing appropriate penalties.
- Determine what level of maintenance should be provided on roads to maintain access and to protect both public safety and natural and cultural resources.

20.3 AGENCY CONCERNS

- Address illegal dumping on public lands through proper coordination with local law enforcement.

20.4 PLANNING CRITERIA

There are no resource-specific planning criteria identified for law enforcement.

20.5 ISSUES ADDRESSED ADMINISTRATIVELY

- The confluence needs to be cleaned up and maintained in a safe fashion.

20.6 ISSUES NOT WITHIN BLM JURISDICTION

- Some private land holders allow hunters to kill over their quota, hunters should be checked on.

ISSUE 21: BORDER ISSUES AND UNDOCUMENTED IMMIGRANTS

21.1 PUBLIC ISSUE SUMMARY

There were a few comments received regarding border issues. Some issues focused on the impact of illegal immigration to natural resources and the creation of undesignated travel routes. Coordination between BLM and other agencies to address all environmental impacts of border control was also an issue. One comment stated that agricultural use aids in border control, allowing easier security of the area that would revert to underbrush, if not under agricultural production.

21.2 BLM MANAGEMENT CONCERNS

Identify land use plan decisions that need to be made regarding International Boundary issues and law enforcement.

Collaborate with other agencies to address the impacts on resources caused by undocumented immigrants and drug smugglers.

Develop strategies to encourage undocumented immigrants to remain on existing roads, to not litter, and to protect and respect natural resources.

- Undocumented immigrants and drug smugglers often drive vehicles off roads, leave behind trash, and burn campfires. This has resulted in management concerns including resource damage (to soils, vegetation, wildlife habitat, cultural resources, etc.), unsanitary human waste disposal, costly clean-up of trash, and the potential for wildfire.
- Safety is another significant management concern. Undocumented immigrants are frequently ill-prepared for the harsh environmental and climatic conditions they encounter, particularly in the summer. This can result in the need for search and rescue operations. Recently, the illegal activities also have resulted in an increased concern for employee and visitor safety as drug smugglers and guides (also known as coyotes) leading the undocumented immigrants have been carrying and sometimes using lethal weapons.

21.3 AGENCY AND TRIBAL CONCERNS

- Distribution and species of vegetation to promote visibility of undocumented immigrants.
- International Border issues related to local law enforcement coordination.

21.4 PLANNING CRITERIA

There are no resource specific planning criteria identified for border issues and undocumented immigrants.

ISSUE 22: WILD HORSES AND BURROS

22.1 PUBLIC ISSUE SUMMARY

Few comments were received on this issue. Some stated that all wild horses and burros should be removed, while others emphasized more control of these animals. One comment stated that water holes for wildlife should also be available to burros.

22.2 BLM MANAGEMENT CONCERNS

- Complete or incorporate Imperial-Trigo Cooperative Management Plan.
- Manage for appropriate levels of utilization of key species.
- Review herd management designations east of State Highway 95.

22.3 AGENCY AND TRIBAL CONCERNS

- There are wild horses and burros located on the national wildlife refuges.

22.4 PLANNING CRITERIA

Management of horses and burros would follow the Wild Free-Roaming Horse and Burro Act (1971), as amended by FLPMA (1976) and Public Rangelands Improvement Act (1978). Horses and burros within California would be managed in accordance with the Northern and Eastern Colorado Desert Coordinated Management Plan (2002). Management of wild horses and burros within the Cibola-Trigo HMA would be in accordance with the Herd Management Area Plan (HMAP) (1980). The HMAP would be revised to include multi-agency monitoring protocol, utilization levels, and HMA boundary as agreed to by Imperial-Trigo Planning Team. The NWRs are not within the HMA, however, wild horse and burro use is allowed at minimal levels. Monitoring data will be used to determine AML_2s and guide removals to ensure that limits set by the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration are maintained.

LAWS, REGULATIONS, AND EXECUTIVE ORDERS

BLM must comply with the mandate and intent of the following Federal laws (and any applicable regulations) and EOs that apply to BLM-administered lands and resources in the planning area.

AIR

Clean Air Act 42 U.S.C. 7401 et seq.

The primary objective of the CAA is to establish Federal standards for various pollutants from both stationary and mobile sources and to provide for the regulation of polluting emissions via state implementation plans. In addition, the amendments are designed to prevent significant deterioration in certain areas where air quality exceeds national standards, and to provide for improved air quality in areas which do not meet Federal standards ("non-attainment" areas).

Federal facilities are required to comply with air quality standards to the same extent as nongovernmental entities. Part C of the 1977 amendments stipulates requirements to prevent significant deterioration of air quality and, in particular, to preserve air quality in national parks, national Wilderness Areas, national monuments and national seashores.

The amendments establish Class I, II and III areas, where emissions of particulate matter and sulfur dioxide are to be restricted. The restrictions are most severe in Class I areas and are progressively more lenient in Class II and III areas.

Mandatory Class I Federal lands include all national Wilderness Areas exceeding 500 acres. Federal land managers are charged with direct responsibility to protect the air quality and related values (including visibility) of Class I lands and to consider, in consultation with EPA, whether proposed facilities will have an adverse impact on these values.

NATIVE AMERICAN TRIBES

American Indian Religious Freedom Act 42 U.S.C. 1996

This act recognizes that freedom of religion for all people is an inherent right and that traditional American Indian religions are an indispensable and irreplaceable part of Indian life. Establishing Federal policy to protect and preserve the inherent right of religions freedom for Native Americans, this act requires Federal agencies evaluate their actions and policies to determine if

changes should be made to protect and preserve the religious cultural rights and practices of Native Americans. Such evaluations are made in consultation with native traditional religious leaders.

Consultation & Coordination with Indian Tribal Governments — EO 13175, November 6, 2000

In formulating or implementing policies that have tribal implications, agencies shall respect Indian tribal self-government and sovereignty, honor tribal treaty and other rights, and strive to meet the responsibilities that arise from the unique legal relationship between the Federal Government and Indian tribal governments.

Indian Sacred Sites — EO 13007, May 24, 1996

In managing Federal lands, agencies shall, to the extent practicable, permitted by law, and not inconsistent with agency functions, accommodate Indian religious practitioners' access to and ceremonial use of Indian sacred sites. Agencies are to avoid adversely affecting the physical integrity of these sites, maintaining the confidentiality of such sites, and informing tribes of any proposed actions that could restrict access to, ceremonial use of, or adversely affect the physical integrity of, sacred sites.

Native American Graves Protection & Repatriation Act — 25 U.S.C. 3001-13

This act establishes requirements for the treatment of Native American human remains and sacred or cultural objects found on Federal land.

In any case where such items can be associated with specific Tribes or groups of Tribes, the agency is required to provide notice of the item in question to the Tribe or Tribes. Upon request, each agency is required to return any such item to any lineal descendant or specific Tribe with whom such item is associated. There are various additional requirements imposed upon the Secretary.

ANTIQUITIES/ARCHAEOLOGY

Antiquities Act — 16 U.S.C. 431-433

This act authorizes the President to designate as National Monuments objects or areas of historic or scientific interest on lands owned or controlled by the U.S. The act required that a permit be obtained for examination of ruins, excavation of archaeological sites and the gathering of objects of antiquity on lands under the jurisdiction of the Secretaries of Interior, Agriculture, and Army, and provided penalties for violations.

Archeological and Historic Preservation Act 16 U.S.C. 469-469c

This law was enacted to carry out the policy established by the Historic Sites Act, directed Federal agencies to notify the Secretary of the Interior whenever they find a Federal or federally assisted, licensed or permitted project may cause loss or destruction of significant scientific, prehistoric or archaeological data. The act authorized use of appropriated, donated and/or transferred funds for the recovery, protection and preservation of such data.

Archaeological Resources Protection Act 16 U.S.C. 470aa - 470ll

This act largely supplanted the resource protection provisions of the Antiquities Act for archaeological items. It established detailed requirements for issuance of permits for any excavation for or removal of archaeological resources from Federal or Indian lands. It also established civil and criminal penalties for the unauthorized excavation, removal, or damage of any such resources; for any trafficking in such resources removed from Federal or Indian land in violation of any provision of Federal law; and for interstate and foreign commerce in such resources acquired, transported or received in violation of any State or local law.

Historic Sites, Buildings and Antiquities Act 16 U.S.C. 461-462, 464-467

This act declared it a national policy to preserve historic sites and objects of national significance. It provided procedures for designation, acquisition, administration and protection of such sites. Among other things, National Historic and Natural Landmarks are designated under authority of this act.

National Historic Preservation Act 16 U.S.C. 470 et seq.

This act provided for preservation of significant historical features (buildings, objects and sites) through a grant-in-aid program to the states. It established a National Register of Historic Places (NRHP) and a program of matching grants under the existing National Trust for Historic Preservation. The act established an Advisory Council on Historic Preservation, which was made a permanent independent agency in1976. Federal agencies are directed to take into account the effects of their actions on items or sites listed or eligible for listing in the National Register.

Preserve America — EO 13287, March 3, 2003

Agencies shall provide leadership in preserving America's heritage by actively advancing the protection, enhancement, and contemporary use of the historic properties owned by the Federal government.

Each agency is to provide and maintain an assessment of the status of its inventory of historic properties and their ability to contribute to community economic development initiatives.

Where consistent with its mission and governing authorities, and where appropriate, agencies shall seek partnerships with State and local governments, Indian tribes, and the private sector to promote the unique cultural heritage of communities and of the nation and to realize the economic benefit that these properties can provide; and cooperate with communities to increase opportunities for public benefit from, and access to, federally owned historic properties.

Protection & Enhancement of Cultural Environment — EO 11593, May 13, 1971

Federal agencies are to provide leadership in the preservation, restoration, and maintenance of the historic and cultural environment. Agencies are to locate and evaluate all Federal sites under their jurisdiction or control which may qualify for listing on the NRHP or sites that qualify. Agencies are to initiate procedures to maintain such federally owned sites. The Advisory Council on Historic Preservation must be allowed to comment on the alteration, demolition, sale, or transfer of property which is likely to meet the criteria for listing as determined in consultation with the State Historic Preservation Officer (SHPO).

ENVIRONMENT - GENERAL

Environmental Quality Improvement Act — 42 U.S.C. 4371 et seq.

Ensures each Federal agency conducting or supporting public works activities affecting the environment implements policies established under existing law principally by establishing the Office of Environmental Quality to provide assistance to, and oversight of, Federal agencies.

Federal Land Policy and Management Act — 43 U.S.C. 1701 et seq.

The "Organic Act" for the BLM, this act provides for the inventory and planning of the public lands to ensure that these lands are managed in accordance with the intent of Congress under the principles of multiple use and sustained yield. The lands are to be managed in a manner that protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values that, where appropriate, will preserve

and protect certain public lands in their natural conditions, that will provide food and habitat for fish and wildlife and domestic animals, and that will provide for outdoor recreation and human occupancy and use by encouraging collaboration and public participation throughout the planning process.

In addition, the public lands must be managed in a manner that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands. Many old laws were repealed but rights obtained under those laws are protected. New authority for the disposal of appropriate public lands through sale or exchange is provided. ROW granting procedures are provided for both the BLM and the Forest Service. The regulations contained in 43 CFR Part 1600 govern the BLM planning process.

National Environmental Policy Act 42 U.S.C. 4321 et seq.

NEPA encourages productive and enjoyable harmony between man and his environment and promotes efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; enriches the understanding of the ecological systems and natural resources important to the Nation.

NEPA requires that for recommendations or reports on proposals for legislation and other major actions significantly affecting the quality of the human environment that Federal agencies through a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man's environment; include a detailed statement by the responsible official on: the environmental impact of the proposed action; any adverse environmental effects which cannot be avoided should the proposal be implemented; alternatives to the proposed action; the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Protection & Enhancement of Environmental Quality EO 11514, March 5, 1970

Federal agencies shall initiate measures needed to direct their policies, plans and programs so as to meet national environmental goals of protecting and enhancing the quality of the Nation's environment to sustain and enrich human life.

Agencies should monitor, evaluate, and control on a continuing basis their agencies' activities so as to protect and enhance the quality of the environment. Such activities shall include those directed to controlling pollution and enhancing the environment and those designed to accomplish other program objectives which may affect the quality of the environment.

Agencies shall ensure the fullest practicable provision of timely public information and understanding of Federal plans and programs with environmental impact in order to obtain the views of interested parties. This will include, whenever appropriate, provision for public

hearings, and shall provide the public with relevant information, including information on alternative courses of action.

Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations EO 12898, February 11, 1994

Agencies shall make achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

FIRE

Timber Protection Act 16 U.S.C. 594

This act authorizes the Secretary of the Interior to protect timber on lands under the Department's jurisdiction from fire, disease and insects

FISH & WILDLIFE

Animal Damage Control Act 7 U.S.C. 426-426c

This act, as amended, gives the Secretary of Agriculture broad authority for investigation, demonstrations and control of mammalian predators, rodents and birds.

Bald Eagle Protection Act 16 U.S.C. 668-668d

This law provides for the protection of the bald eagle (the national emblem) and the golden eagle by prohibiting, except under certain specified conditions, the taking, possession and commerce of such birds.

Conservation of Migratory Birds EO 13186, January 10, 2001

EO 13186 creates a more comprehensive strategy for the conservation of migratory birds by the Federal government. The order provides a specific framework for the Federal government’s compliance with its treaty obligations to Canada, Mexico, Russia, and Japan. The order provides broad guidelines on conservation responsibilities and requires the development of more detailed guidance in MOU within two years of its implementation. The order will be coordinated and implemented by the USFWS. The MOU will outline how Federal agencies will promote conservation of migratory birds. The order will requires the support of various conservation planning efforts already in progress; incorporation of bird conservation considerations into

agency planning, including NEPA analyses; and reporting annually on the level of take of migratory birds.

Endangered Species Act 16 U.S.C. 1532 et seq.

This act provides for the conservation of ecosystems upon which threatened and endangered species of fish, wildlife, and plants depend, both through Federal action and by encouraging the establishment of State programs. The act: authorizes the determination and listing of species as endangered and threatened; prohibits unauthorized taking, possession, sale, and transport of endangered species; provides authority to acquire land for the conservation of listed species, using land and water conservation funds; authorizes establishment of cooperative agreements and grants-in-aid to states that establish and maintain active and adequate programs for endangered and threatened wildlife and plants; authorizes the assessment of civil and criminal penalties for violating the act or regulations; and authorizes the payment of rewards to anyone furnishing information leading to arrest and conviction for any violation of the act or any regulation issued there under.

Section 7 of the ESA requires Federal agencies to insure that any action authorized, funded or carried out by them is not likely to jeopardize the continued existence of listed species or modify their critical habitat.

Exotic Organisms EO 11987, May 24, 1977

Agencies, to the extent permitted by law, are to: restrict the introduction of exotic species into the natural ecosystems on lands and waters owned or leased by the U.S.; encourage states, local governments, and private citizens to prevent the introduction of exotic species into natural ecosystems of the U.S.; restrict the importation and introduction of exotic species into any natural U.S. ecosystems as a result of activities they undertake, fund, or authorize; and restrict the use of Federal funds, programs, or authorities to export native species for introduction into ecosystems outside the U.S. where they do not occur naturally.

Migratory Bird Treaty Act of 1918, amended in 1936, 1960, 1968, 1969, 1974, 1978, 1986, and 1989

The Migratory Bird Treaty Act implements treaties and conventions between the U.S., Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Unless otherwise permitted by regulations, the act makes it unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. The act also make it unlawful to ship, transport or carry from one state, territory or district to another, or through a foreign country, any bird, part, nest or egg that was captured, killed, taken, shipped, transported or carried contrary to the laws from where it was obtained; and import from Canada any bird, part, nest or egg obtained contrary to the laws of the province from which it was obtained. The USDOI has authority to arrest, with or without a warrant, a person violating the act.

Neotropical Migratory Bird Conservation Act P.L. 106-247

This act provides grants to countries in Latin America and the Caribbean, and the U.S. for the conservation of neotropical migratory birds that winter south of the border and summer in North America. The law encourages habitat protection, education, researching, monitoring, and capacity building to provide for the long-term protection of neotropical migratory birds.

Recreational Fisheries EO 12962, June 7, 1995

Agencies shall improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities by such activities as: developing and encouraging partnerships between governments and the private sector to advance aquatic resource conservation and enhance recreational fishing opportunities, identifying recreational fishing opportunities that are limited by water quality and habitat degradation and promoting restoration to support viable, healthy, and, where feasible, self-sustaining recreational fisheries, fostering sound aquatic conservation and restoration endeavors to benefit recreational fisheries, supporting outreach programs designed to stimulate angler participation in the conservation and restoration of aquatic systems, and implementing laws under their purview in a manner that will conserve, restore, and enhance aquatic systems that support recreational fisheries.

Sikes Act 16 U.S.C. 670

The Sikes Act, as amended, (Public Law 86-797, approved September 15, 1960), provides for cooperation by the USDOI and Defense with State agencies in planning, development and maintenance of fish and wildlife resources on military reservations throughout the U.S. An amendment enacted August 8, 1968, (P.L. 90-465, 82 Stat. 661) authorizes a program for development of outdoor recreation facilities. Public Law 93-452, signed October 18, 1974, (88 Stat. 1369) authorized conservation and rehabilitation programs on Atomic Energy Commission, Forest Service, and BLM lands. These programs are carried out in cooperation with the States by the Secretary of the Interior and on Forest Service lands by the Secretary of Agriculture.

FORESTS

Forest Service Authorities

Some of the laws governing the operations and activities of the Forest Service are:

- The National Forest Management Act of 1976, which extensively amended the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1600 et seq.), and which constitutes the "organic act" for the Forest Service.

- The Multiple Use Sustained Yield Act of 1960 (16 U.S.C. 528 et seq.) established purposes for the Forest System, including outdoor recreation, range, timber, watershed and fish and wildlife.

- The Cooperative Forestry Assistance Act (16 U.S.C. 2100 et seq.), authorizes the Secretary of Agriculture to cooperate on forest management issues with non-Federal forest lands.

Various other laws and authorities for the Forest Service are codified at 16 U.S.C. sections 471 through 573.

Timber Protection Act 16 U.S.C. 594

This Act authorizes the Secretary of the Interior to protect timber on lands under the Department's jurisdiction from fire, disease, and insects

LAND

Desert Land Act 43 U.S.C. 321 et seq.

This act allows entry of up to 320 acres of desert land where the entryman intends to reclaim the land for agricultural purposes within three years. Lands must be determined to be available and classified pursuant to 43 U.S.C. 315f before such an entry can be allowed.

Exchanges of Public Land for Non-Federal Land 43 U.S.C. 1716

Allows the exchange of Public Land, or interests therein, for non-Federal lands where it is determined (the Secretary finds) that the public interest will be well served by making the exchange. Values of the disposed and acquired lands must be equal in value.

Federal Land Exchange Facilitation Act 43 U.S.C. 1716, August 20, 1988

Basically amends the exchange provisions of FLPMA to streamline and facilitate land exchange procedures and to expedite exchanges.

Federal Land Transaction Facilitation Act PL 106-248, July 25, 2000

Provides a more expeditious process for disposal and acquisition of land to facilitate a more effective configuration of land ownership patterns.

Funds from the sale of specified land is deposited in a special fund available to acquire land and to process additional land sales.

Recreation and Public Purposes Act — 43 U.S.C. 869 et seq.

This act provides for the lease or disposal of public lands, and certain withdrawn or reserved lands, to State and local governments and qualified non-profit organizations to be used for recreational or public purposes. Prices that are charged for land use or acquisition are normally less than market value of the specific lands. The act allows for reversion of the lands under certain conditions.

MINING & MINERAL LEASING

Federal Coal Leasing Amendments Act — 30 U.S.C. 201

This act made major changes in the way coal leases tracts are established, economic and environmental considerations, sale/leasing procedures, and penalties for violations.

General Mining Law — 30 U.S.C. 21 et seq.

This authority sets forth rules and procedures for the exploration, location and patenting of lode, placer, and mill site mining claims. Claimants must file notice of the original claim with the BLM as well as annual notice of intention to hold, affidavit of assessment work or similar notice.

Geothermal Steam Act — 30 USC 1001 et seq.

This act authorizes and governs the lease of geothermal steam and related resources on public lands

Materials Sales Act — 30 U.S.C. 601-604

This act provides for the disposal of materials on public lands and requires the Secretary, under such rules and regulations as he may prescribe, may dispose of mineral materials (including but not limited to common varieties of the following: sand, stone, gravel, pumice, pumicite, cinders, and clay) and vegetative materials (including but not limited to yucca, manzanita, mesquite, cactus, and timber or other forest products) on public lands of the U.S. Such materials may be disposed of upon the payment of adequate compensation. The Secretary is authorized in his discretion to permit any Federal, State, or Territorial agency, unit or subdivision, including municipalities, or any association or corporation not organized for profit, to take and remove, without charge, materials and resources for use other than for commercial or industrial purposes or resale.

Mineral Leasing Act 30 U.S.C. 181 et seq.

This act authorizes and governs leasing of public lands for development of deposits of coal, oil, gas and other hydrocarbons, sulphur, phosphate, potassium and sodium.

Mineral Leasing Act for Acquired Lands 30 U.S.C. 351 et seq.

This act authorizes and governs mineral leasing on acquired lands.

Mining & Mineral Policy Act 30 U.S.C. 21a

This act expressed the national policy to foster and encourage private enterprise in the development of economically sound and stable domestic mining, minerals, metal and mineral reclamation industries, the orderly and economic development of domestic mineral resources, reserves, and reclamation of metals and minerals to help assure satisfaction of industrial, security and environmental needs, mining, mineral, and metallurgical research, including the use and recycling of scrap to promote the wise and efficient use of our natural and reclaimable mineral resources, and the study and development of methods for the disposal, control, and reclamation of mineral waste products, and the reclamation of mined land, so as to lessen any adverse impact of mineral extraction and processing upon the physical environment that may result from mining or mineral activities.

Stock Raising Homestead Act 43 U.S.C. 291-299

Patents issued under this authority reserved minerals to the U.S. as well as the right to prospect for, mine, and remove said minerals. Certain conditions exist to protect the patentee's improvements.

Surface Mining Control & Reclamation Act 30 U.S.C. 1201 et seq.

This act establishes a program for the regulation of surface mining activities and the reclamation of coal-mined lands, under the administration of the Office of Surface Mining, Reclamation and Enforcement, in the USDOI.

The law sets forth minimum uniform requirements for all coal surface mining on Federal and State lands, including exploration activities and the surface effects of underground mining. Mine operators are required to minimize disturbances and adverse impact on fish, wildlife and related environmental values and achieve enhancement of such resources where practicable. Restoration of land and water resources is ranked as a priority in reclamation planning.

POLLUTION—GENERAL

Comprehensive Environmental Response Compensation & Liability Act (Superfund) 42 U.S.C. 9601 et seq.

The "Superfund" statute was enacted in 1980; major amendments were enacted in 1983 and in 1986. The 1980 statute authorized, through 1985, the collection of taxes on crude oil and petroleum products, certain chemicals, and hazardous wastes. It also established liability to the U.S. Government for damage to natural resources over which the U.S. has sovereign rights and requires the President to designate Federal officials to act as trustees for natural resources. Use of Superfund monies to conduct natural resource damage assessments was provided.

The 1983 amendments established a comprehensive system to react to releases of hazardous substances and to determine liability and compensation for those affected. The President is authorized to notify Federal and State natural resource trustees of potential damages to natural resources and to coordinate related assessments.

Amendments enacted in 1986 (known as the Superfund Amendment and Reauthorization Act, among others, 1) added effects on natural resources as a criterion for determining facilities to be placed on the National Priorities List, 2) mandated the designation of Federal officials to act as trustees for natural resources and to assess damages and injury to, as well as destruction of, or loss of, natural resources, 3) stipulated that Superfund monies may only be used for natural resource damage claims if all administrative and judicial remedies to recover costs from liable parties have been exhausted, 4) clarified that Federal facilities are subject to the same cleanup requirements and liability standards as non-governmental entities, and 5) eliminated the authorization for use of Superfund monies to conduct damage assessments.

Federal Environmental Pesticide Control Act 7 U.S.C. 136

This act, in simple terms, provided for a program for controlling the sale, distribution, and application of pesticides through an administrative registration process and for classifying pesticides for "general" or "restricted" use. "Restricted" pesticides may only be applied by or under the direct supervision of a certified applicator

Federal Compliance with Pollution Control Standards EO 12088

To ensure Federal compliance with applicable pollution control standards, this EO provides as follows: 1) The head of each Executive agency is responsible for ensuring that all necessary actions are taken for the prevention, control, and abatement of environmental pollution with respect to Federal facilities and activities under the control of the agency, and 2) The head of each Executive agency is responsible for compliance with applicable pollution control standards.

Applicable pollution control standards means the same substantive, procedural, and other requirements that would apply to a private person.

Superfund Implementation EO 12580

This EO delegates to various Federal officials the responsibilities vested in the President for implementing the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986. This EO and the National Contingency Plan (NCP) (the implementing regulations of CERCLA) are the basis of DOE's authority to implement CERCLA at DOE facilities. The EO delegates the authority and responsibility to DOE, while the NCP describes EPA's procedures for implementing the CERCLA program. DOE is required to carry out a number of key functions, including, providing representatives to the National Response Team, the interagency organization responsible for planning for and responding to CERCLA releases; acting as a natural resource trustee for land that DOE manages; performing natural resource damage assessments (NRDA); and assuming authority for response actions resulting from releases of hazardous substances on, over, or under land that DOE manages.

Federal Compliance with Right to Know Laws and Pollution Prevention Requirements EO 12856, August 3, 1993

Requires agencies to comply with the provisions of the Pollution Prevention Act and to assure all necessary actions are taken to prevent pollution. The CEQ provided guidance on pollution prevention in the Federal Register of January 29, 1993.

Resource Conservation & Recovery Act 42 U.S.C. 6901 et seq.

This act regulates the treatment, transportation, storage, and disposal of solid and hazardous wastes. The Service is required to comply with standards for wastes generated at its facilities. The key provisions include:

- Identification and listing of hazardous waste and standards applicable to hazardous waste -- Requires reporting of hazardous waste, permitting for storage, transport, and disposal, and it includes provisions for oil recycling and Federal hazardous waste facilities inventories.
- Management for solid waste, including landfills.
- Applicability of Federal, State, and local laws to Federal agencies.
- Management, replacement, and monitoring of underground storage tanks.

Toxic Substances Control Act 15 U.S.C. 2601 et seq.

This act authorized the EPA to obtain data from industry on health and environmental effects of chemical substances and mixtures. If unreasonable risk or injury may occur, EPA may regulate, limit or prohibit the manufacture, processing, commercial distribution, use and disposal of such chemicals and mixtures.

Pollution Prevention Act 42 U.S.C. 13101 et seq.

This act encourages manufacturers to avoid the generation of pollution by modifying equipment and processes, redesigning products, substituting raw materials, and making improvements in management techniques, training and inventory control.

Solid Waste Disposal Act 42 U.S.C. 6901 et seq.

Establishes a national policy that, wherever feasible, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible. Waste that is nevertheless generated should be treated, stored, or disposed of so as to minimize the present and future threat to human health and the environment. It directs the EPA to provide guidelines for the treatment, handling, and storage of such wastes.

RANGELANDS

Federal Noxious Weed Act 7 U.S.C. 2801 et seq.

This act provides the Secretary of Agriculture authority to designate plants as noxious weeds by regulation, and prohibits the movement of all such weeds in interstate or foreign commerce except under permit. The Secretary also has authority to inspect, seize and destroy products, and to quarantine areas, if necessary to prevent the spread of such weeds. He is also authorized to cooperate with other Federal, State and local agencies, farmers associations and private individuals in measures to control, eradicate, or prevent or retard the spread of such weeds.

Each Federal land-managing agency is to designate an office or person adequately trained in managing undesirable plant species to develop and coordinate a program to control such plants on the agency's land.

Invasive Species EO 13112, February 3, 1999

The purpose is to prevent the introduction of invasive species and provide for their control, as well as to minimize the economic, ecological, and human health impacts that invasive species cause.

Agencies whose actions may affect the status of invasive species shall: (1) identify such actions, (2) use relevant programs and authorities to prevent, control, monitor, and research such species, and (3) not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the U.S. or elsewhere

Noxious Plant Control Act 43 U.S.C. 1241-43

Authorizes agencies to allow, and pay for, State authorities to enter Federal land for the control/destruction of noxious plants.

Public Rangelands Improvement Act 43 U.S.C. 1901 et seq.

This act was instituted to improve public rangeland conditions in the 16 contiguous western states on which there is, or is capable for, domestic livestock grazing. Rangeland quality is determined by soil quality, forage values, wildlife habitat, watershed and plant communities, the current state of vegetation in a site in relation to its potential, and the relative degree to which the kinds, proportions, and amounts of vegetation in a plant community resemble the desired plant community.

Taylor Grazing Act 43 U.S.C. 215 et seq.

The TGA was the Federal government's first effort to regulate grazing on federal lands. Under the act grazing districts were established of vacant, unreserved, public domain lands which were chiefly valuable for grazing and raising forage crops. Grazing is regulated through leases or licenses for which a fee is paid. Regulations provide for the development of state Standards for Rangeland Health and Guideline for Grazing Management. Such standards and guidelines are approved through the BLM's planning and NEPA processes.

The TGA also eliminated settlement on the public domain and provided for the classification and disposal of public lands more valuable for uses other than grazing or the production of forage crops.

Residents and stock owners pay an annual fee to obtain a grazing permit that is used to manage livestock grazing in established districts. Grazing Administration Regulations (43 CFR 4100) provide for the development of State Standards for Rangeland Health and Guidelines for Grazing Management. The Standards and Guidelines are approved through BLM planning and NEPA processes.

Wild Free-Roaming Horse & Burro Act 16 U.S.C. 1331-1340

This act provides for protection of wild, free-roaming horses and burros. It directs the BLM of the USDOI and Forest Service to manage such animals on public lands under their jurisdiction.

RECREATION
RIGHTS-OF-WAY

With the passage of FLPMA in 1976, BLM was left with existing ROWs ("Pre-FLPMA" ROWs) and three basic authorities under which public lands may be used or dedicated to various types of ROWs.

Action to Expedite Energy Related Projects EO 13212, May 18, 2001

For energy-related projects, agencies shall expedite their review of permits or take other actions as necessary to accelerate the completion of such projects, while maintaining safety, public health, and environmental protections. The agencies shall take such actions to the extent permitted by law and regulation, and where appropriate.

Environmental Stewardship & Transportation Infrastructure Project Reviews EO 13274, September 18, 2002

Agencies shall take appropriate actions, to the extent consistent with applicable law and available resources, to promote environmental stewardship in the Nation's transportation system and expedite environmental reviews of high-priority transportation infrastructure projects.

For transportation infrastructure projects, agencies shall, in support of the Department of Transportation, formulate and implement administrative, policy, and procedural mechanisms that enable each agency required by law to conduct environmental reviews with respect to such projects to ensure completion of such reviews in a timely and environmentally responsible manner.

Energy Supply, Distribution, or Use EO 13211, May 18, 2001

This order requires an impact and alternative analysis for any proposed rule that would have an adverse impact on energy supply, distribution, or use.

Federal Aid Highways 23 U.S.C. 317

Where Federal Aid highways are involved, the Secretary of Transportation may appropriate Federal land for such highway projects. Applications or requests are usually filed by the State Department of Transportation through the local office of the FHWA. If BLM does not disapprove such a request within 120 days, the appropriation is automatic. When BLM issues a letter "consenting" to the appropriation reasonable terms and conditions may be included.

FLPMA ROWs — 43 U.S.C. 1761 et seq.

Title V of FLPMA gives the BLM authority to authorize most types of ROW use, other than oil & gas ROWs, on the public lands. The term of the ROW is determined by need and conditions; it may be indefinite but usually is around 30 years. ROWs may be renewed.

Off-Road Vehicles — EO 11644, February 8, 1972 and EO 11989, May 24, 1977

These orders require public land managers "to establish policies and procedures that will ensure that the use of off-highway vehicles on public lands will be controlled and directed to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands."

Oil and Gas Pipeline ROWs — 30 U.S.C. 185

The Mineral Leasing Act of 1920, as amended, contains provisions for the issuance of ROWs for the transportation of natural gas and oil or products derived there from. The term of the ROW is limited to 30 years but is renewable. Where an application involves land administered by two or more Federal agencies, the Secretary of the Interior has delegated the decision making to the BLM. Federal agencies are not eligible under this authority.

Pre-FLPMA ROWs — 43 U.S.C. 1701 Savings Provision

Various laws provided for ROWs ranging from ditches and canals through communications to railroads. Some are indefinite in term and will remain under the pre-FLPMA authority until abandoned. Others have definite terms and will come under current authorities if amended or renewed.

RIVERS AND STREAMS

American Heritage Rivers EO 13061, September 11, 1997

This EO has three objectives: natural resource and environmental protection, economic revitalization, and historic and cultural preservation. Agencies, to the extent permitted by law and consistent with their missions and resources, shall coordinate Federal plans, functions, programs, and resources to preserve, protect, and restore rivers and their associated resources important to our history, culture, and natural heritage

Wild & Scenic Rivers Act 16 U.S.C. 1271 et seq.

This act establishes a National Wild and Scenic Rivers System and prescribes the methods and standards through which additional rivers may be identified and added to the system.

TRAILS

National Parks and Recreation Act of 1978 PL 95-625

This act provides for increases in appropriations ceilings, development ceilings, land acquisition, and boundary changes in certain Federal park and recreation areas, and for other purposes. It provides for the establishment of new units of the national park system, numerous boundary changes, and authorization increases for existing units of the national park system, and designated portions of a number of existing national park system areas as Wilderness. It also established a new category in the National Trails System labeled "National Historic Trails" and would designate additional national scenic trails.

National Trails System Act 16 U.S.C. 1241-1249

This act provides for establishment of NRTs, National Scenic Trails, and National Historic Trails NHTs.

NRTs may be established by the Secretaries of Interior or Agriculture on land wholly or partly within their jurisdiction, with the consent of the involved State(s), and other land managing agencies, if any. National Scenic Trails and NHTs may only be designated by an act of Congress.

WATER—GENERAL

Arizona Revised Statutes A.R.S. Title 45 – Waters

Title 45 of the Arizona Revised Statues governs water use within the State. Arizona's water law is based on the doctrine of prior appropriation, but it is administered based on a bifurcated system where surface water is regulated separately from ground water. There are basically four categories of water supplies available in Arizona: Colorado River water, surface water other than Colorado River water, ground water, and effluent. Each water supply is managed in a different manner. Colorado River water is allocated through the Law of the River and Arizona's water banking program, surface water rights are based on "first in time, first in right," and groundwater rights vary depending on location.

Clean Water Act PL 95-217

The CWA extensively amended the Federal Water Pollution Act. Of particular significance were the following provisions:

Colorado River Floodway Protection Act 100 Stat. 1129

This act established a Colorado River Floodway Area, within which are prohibited 1) all new Federal funding or financial assistance for any purpose (except for listed exceptions), 2) Federal flood insurance for new construction or substantial improvements begun six months after enactment on existing structures, and 3) the granting of new Federal leases (unless the Secretary determines the purpose is consistent with the act).

Colorado River Basin Project Act 43 U.S.C. 1501-1556

This act provided a program for the comprehensive development of the water resources of the Colorado River Basin, and directed the Secretary of the Interior to develop, after consultation with affected states and appropriate Federal agencies, a regional water plan to serve as the framework under which projects in the Colorado River Basin may be coordinated and constructed.

Colorado River Basin Salinity Control Act 43 USC 1571-1599

This act authorized the construction of facilities necessary to meet the terms of the 1973 Salinity Agreement with Mexico.

Colorado River Storage Project Act 43 U.S.C. 620

This act authorized the Secretary of the Interior to construct a variety of dams, power plants, reservoirs and related works. The act also authorized and directed the Secretary, in connection with the development of the Colorado River Storage Project and participating projects, to investigate, plan, construct and operate facilities to mitigate losses of, and improve conditions for, fish and wildlife and public recreational facilities. The act provided authority to acquire lands and to lease or convey lands and facilities to State and other agencies.

Federal Water Pollution Control Act 33 U.S.C. 1251 et seq.

The original 1948 statute, the Water Pollution Control Act, authorized the Surgeon General of the Public Health Service, in cooperation with other Federal, State and local entities, to prepare comprehensive programs for eliminating or reducing the pollution of interstate waters and tributaries and improving the sanitary condition of surface and underground waters. During the development of such plans, due regard was to be given to improvements necessary to conserve waters for public water supplies, propagation of fish and aquatic life, recreational purposes, and agricultural and industrial uses. The original statute also authorized the Federal Works Administrator to assist states, municipalities, and interstate agencies in constructing treatment plants to prevent discharges of inadequately treated sewage and other wastes into interstate waters or tributaries.

Since 1948, the original statute has been amended extensively either to authorize additional water quality programs, standards and procedures to govern allowable discharges, funding for construction grants or general program funding. Amendments in other years provided for continued authority to conduct program activities or administrative changes to related activities.

- Development of a "Best Management Practices" Program as part of the State area wide planning program
- Authority for the USACE to issue general permits on a state, regional, or national basis for any category of activities which are similar in nature, will cause only minimal environmental effects when performed separately, and will have only minimal cumulative adverse impact on the environment
- Exemption of various activities from the dredge and fill prohibition including normal farming, silviculture, and ranching activities (33 USC 1344(f))
- Procedures for State assumption of the regulatory program.

The CWA requires the EPA to establish water quality standards for specified contaminants in surface waters and forbids the discharge of pollutants from a point source into navigable waters without a National Pollutant Discharge Elimination System permit. National Pollutant Discharge Elimination System permits are issued by EPA or the appropriate State if it has assumed responsibility. Section 404 of the CWA establishes a Federal program to regulate the discharge of dredged and fill material into waters of the U.S. Section 404 permits are issued by the USACE.

Flood Control Act 16 U.S.C. 460d et seq.

This act, as amended and supplemented by other flood control acts and river and harbor acts, authorizes various USACE water development projects. This statute expressed Congressional intent to limit the authorization and construction of navigation, flood control, and other water projects to those having significant benefits for navigation and which could be operated consistent with other river uses. The authority to construct, operate and maintain public park and recreational facilities in reservoir areas was also provided.

Floodplain Management EO 11988, May 24, 1977

The purpose of this EO is to prevent agencies from contributing to the "adverse impacts associated with the occupancy and modification of floodplains" and the "direct or indirect support of floodplain development."

In the course of fulfilling their respective authorities, agencies "shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains."

Before proposing, conducting, supporting or allowing an action in a floodplain, each agency is to determine if planned activities will affect the floodplain and evaluate the potential effects of the intended actions on its functions. Agencies shall avoid siting development in a floodplain "to avoid adverse effects and incompatible development in the floodplains,"

Oil Pollution Act 33 U.S.C. 2701 et seq.

This act established new requirements and extensively amended the Federal Water Pollution Control Act to provide enhanced capabilities for oil spill response and natural resource damage assessment

Among other provisions are that Federal trustees shall assess natural resource damages for natural resources under their trusteeship. Federal trustees may, upon request from a State or Indian tribe, assess damages to natural resources for them as well. Trustees shall develop and implement a plan for the restoration, rehabilitation, replacement, or acquisition of the equivalent of natural resources under their trusteeship.

Protection of Wetlands EO 11990, May 24, 1977

Similar to Floodplain Management, agencies are directed to consider alternatives to avoid adverse effects and incompatible developments in areas of wetlands. New construction is to be avoided if possible.

Safe Drinking Water Act 42 U.S.C. 300h

This act establishes a program to monitor and increase the safety of all commercially and publicly supplied drinking water. This act was amended in 1986 to require the EPA to establish Maximum Contaminant Levels, Maximum Contaminant Level Goals, and Best Available Technology treatment techniques for organic, inorganic, radioactive, and microbial contaminants, and turbidity. In 1996, current Federal Maximum Contaminant Level Goals and Best Available Technology treatment techniques in public drinking water supplies were set.

Water Quality Act PL 100-4

This act provided the most recent series of amendments to the Federal Water Pollution Act. Provisions included:

- Requirement that states develop strategies for toxics cleanup in waters where the application of "Best Available Technology" discharge standards is not sufficient to meet State water quality standards and support public health,
- Increase in the penalties for violations of Section 404 permits, and
- Requirement that EPA study and monitor the water quality effects attributable to the impoundment of water by dams.

Water Resources Planning Act 42 U.S.C. 1962a - 1962(a)(4)(e)

This act established a Water Resources Council to be composed of Cabinet representatives, including the Secretary of the Interior. It also established River Basin Commissions and stipulated their duties and authorities.

The Council was empowered to maintain a continuing assessment of the adequacy of water supplies in each region of the U.S. In addition, the Council was mandated to establish principles and standards for Federal participants in the preparation of river basin plans and in evaluating Federal water projects. Upon receipt of a river basin plan, the Council was required to review the plan with respect to agricultural, urban, energy, industrial, recreational and fish and wildlife needs.

Water Rights 43 U.S.C. 666

This act waives the sovereign immunity of the U.S. where there is a suit designed to establish the rights to a river or other source of water, or the administration of such rights, and the U.S. appears to own or be in the process of acquiring rights to any such water. (The effect is to permit State courts to adjudicate Federal water rights claims under State law.)

WILDERNESS

Arizona Desert Wilderness P.L. 101-628

This act added 38 BLM administered areas and four USFWS administered areas in Arizona to the National Wilderness Preservation System and increased the size of an existing BLM Wilderness. Additional provisions of the act included the retention of two BLM areas in wilderness study status and the designation of a National Conservation Area. The YFO administers four Wilderness Areas (Eagletail Mountains, Muggins Mountain, New Water Mountains, and Trigo Mountains) designated by this act.

The California Desert Protection Act P.L. 103-433

This act designated lands in the BLM California Desert District as Wilderness, established Death Valley and Joshua Tree National Parks, and established the Mojave National Preserve. The YFO administers portions of four Wilderness Areas (Big Maria Mountains, Little Picacho, Palo Verde Mountains, and Riverside Mountains) designated by this act in coordination with two California Desert District Field Offices.

Wilderness Act 16 U.S.C. 1131 et seq.

This act established a National Wilderness System of areas to be designated by Congress. It directed the Secretary of the Interior, within 10 years, to review every roadless area of 5,000 or more acres and every roadless island (regardless of size) within NWR and NPS and to recommend to the President the suitability of each such area or island for inclusion in the National Wilderness Preservation System, with final decisions made by Congress. The Secretary of Agriculture was directed to study and recommend suitable areas in the National Forest System.

The act provides criteria for determining suitability and establishes restrictions on activities that can be undertaken on a designated area. Criteria set by Congress within this act states that Wilderness Areas have the following characteristics: (1) Generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and confined types of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological or other features of scientific, educational, scenic or historical value. The Wilderness Act also set the accepted uses of designated Wilderness Areas and what uses are prohibited. The act sets special provisions for an agency's continuing management of existing or grandfathered rights such as mining and grazing and other agency mission related activities.

OTHER

Base Closure & Realignment Act Title II of P.L. 100-526

The act establishes a preference for the sale of land made surplus as a result of base closures or reductions, with the funds to be utilized for the costs of the closures, or for transfer of the land to a local redevelopment authority. It does not require such sales, however, nor does it repeal the provisions of law permitting the no- or reduced-cost transfer of such land to Federal agencies or the states for conservation purposes.

Cave Resources Protection Act 16 U.S.C. 4301 et seq.

This act established requirements for the management and protection of caves and their resources on Federal lands, including allowing the land managing agencies to withhold the location of caves from the public, and requiring permits for any removal or collecting activities in caves on Federal lands.

Federal Advisory Committee Act P.L. 92-463

The Federal Advisory Committee Act (or FACA) is a U.S. federal law(P.L. 92-463, October 6, 1972), which governs the behavior of advisory committees. In particular it restricts the formation of such committees to only those which are deemed essential, limits their powers to provision of advice to officers and agencies in the executive branch of the Federal government, and limits the length of term during which any such committee may operate. Further, the Federal Advisory Committee Act was an attempt by congress to curtail the rampant "locker-room discussion" that had become prevalent in administrative decisions. The Federal Advisory Committee Act declared that all administrative procedures and hearings were to be public knowledge. Also see "sunshine clause" and "Administrative Procedure Act Section 553."

Federal Power Act 16 U.S.C. 791-828c

Established what is now the Federal Energy Regulatory Commission. Studies water related power development possibilities. Licenses and oversees the development of water power project on Federal and non-Federal land. On Federal land coordinates with agencies and, for some agencies they may dictate conditions to be included in licenses.

The Federal Energy Regulatory Commission also regulates interstate electric transmission lines and interstate oil and gas pipelines. Issues “certificates of public convenience” for these interstate facilities.

Federalism EO 13132, August 4, 1999

In formulating and implementing policies that have federalism implications, agencies shall be guided by the following principles:

- Federalism is rooted in the belief that issues that are not national in scope or significance are most appropriately addressed by the level of government closest to the people.
- The people of the states created the national government and delegated to it enumerated governmental powers. All other sovereign powers, save those expressly prohibited the states by the Constitution, are reserved to the states or to the people.
- The Framers recognized that the states possess unique authorities, qualities, and abilities to meet the needs of the people and should function as laboratories of democracy.
- The nature of our constitutional system encourages a healthy diversity in the public policies adopted by the people of the several states according to their own conditions, needs, and desires. One-size-fits-all approaches to public policy problems can inhibit the creation of effective solutions to those problems.
- Policies of the national government should recognize the responsibility of--and should encourage opportunities for--individuals, families, neighborhoods, local governments, and private associations to achieve their personal, social, and economic objectives through cooperative effort.
- The national government should be deferential to the states when taking action that affects the policymaking discretion of the states and should act only with the greatest caution where State or local governments have identified uncertainties regarding the constitutional or statutory authority of the national government.

Freedom of Information Act P.L. 85-619

The Freedom of Information Act is the implementation of freedom of information legislation in the U.S. The act explicitly applies only to Federal government agencies. These agencies are under several mandates to comply with public solicitation of information. Along with making public and accessible all bureaucratic and technical procedures for applying for documents from that agency, agencies are also subject to penalties for hindering the process of a petition for information. However, there are nine exemptions, ranging from a withholding "specifically authorized under criteria established by an EO to be kept secret in the interest of national defense or foreign policy" and "trade secrets" to "clearly unwarranted invasion of personal privacy." In all cases, the President has unlimited power in declaring something off-limits or necessarily classified in the concern of national safety.

Land and Water Conservation Fund 16 USC 460l - 460l-11

This fund is derived from various types of revenue (primarily Outer Continental Shelf oil monies) and appropriations from the fund may be used for 1) matching grants to states for outdoor recreation projects and 2) land acquisition for various Federal agencies.

Intergovernmental Review of Federal Programs — EO 12372

In order to foster an intergovernmental partnership and a strengthened federalism by relying on State and local processes, the provisions of EO 12372, July 14, 1982, provides that: 1) Federal agencies shall provide opportunities for consultation by elected officials of those State and local governments that would provide the non-Federal funds for, or that would be directly affected by, proposed Federal financial assistance or direct Federal development, and 2) To the extent the states, in consultation with local general purpose governments, and local special purpose governments they consider appropriate, develop their own processes or refine existing processes for State and local elected officials to review and coordinate proposed Federal financial assistance and direct Federal development.

Privacy Act of 1974 — P.L. 93-579

The Privacy Act states in part, that no agency shall disclose any record which is contained in a system of records by any means of communication to any person, or to another agency, except pursuant to a written request by, or with the prior written consent of, the individual to whom the record pertains. However, there are specific exceptions for the record allowing the use of personal records. These exceptions are as follows: (1) For statistical purposes by the Census Bureau and the Bureau of Labor Statistics, (2) For routine uses within a U.S. government agency, (3) For archival purposes "as a record which has sufficient historical or other value to warrant its continued preservation by the U.S. Government," (4) For law enforcement purposes, (5) For Congressional investigations, and (6) Other administrative purposes. The Privacy Act mandates that each U.S. Government agency have in place an administrative and physical security system to prevent the unauthorized release of personal records.

Regulatory Impact Analysis — EO 12866, September 30, 1993

Requires agencies to analyze the economic impact of proposed rules.

Takings — EO 12630, March 15, 1988

The Fifth Amendment of the U.S. Constitution provides that private property shall not be taken for public use without just compensation. Government historically has used the formal exercise of the power of eminent domain, which provides orderly processes for paying just compensation, to acquire private property for public use. Recent Supreme Court decisions, however, in reaffirming the fundamental protection of private property rights provided by the Fifth Amendment and in assessing the nature of governmental actions that have an impact on constitutionally protected property rights, have also reaffirmed that governmental actions that do not formally invoke the condemnation power, including regulations, may result in a taking for which just compensation is required.

Agencies shall evaluate carefully the effect of their actions on constitutionally protected property rights to prevent unnecessary takings and should account in decision-making for those takings that are necessitated by statutory mandate.

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AREAS OF CRITICAL ENVIRONMENTAL CONCERN EVALUATION REPORTS

To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. In this evaluation report, YFO staff answered specific evaluation questions listed in the manual for relevance and importance. Seven areas were evaluated as part of the land use planning process. Two of the areas were previously designated ACECs in the 1987 Yuma District RMP. Five areas are evaluated as new proposals.

As required under BLM Manual 1613.33E, the rationale for proposing or not proposing an area for ACEC designation in the Proposed Plan is discussed for each proposal. YFO staff determined that four of the proposals do not require special management attention because standard or routine management prescriptions are sufficient to protect the resources or values from risks or threats of damage/degradation. The management prescriptions that would be used to manage these areas can be found throughout Chapter 2 of this document.

Table 1
Areas of Critical Environmental Concern Proposals Evaluated

Name	Acres Evaluated	Acreage Proposed as ACEC under Proposed Plan	Values of Concern
Big Marias	4,500 / 9,200*	4,500	Cultural resources, riparian habitat.
Dripping Springs	9,800 / 11,700*	11,700	Perennial spring, desert bighorn sheep, cultural resources.
Gila River Terraces and Trails	140,400	28,500**	Cultural resources, historic and prehistoric trails along Gila River, riparian habitat.
Limitrophe	4,500	0	Riparian habitat, migratory birds, cultural resources, border issues.
Palomas Plains	429,900	0	Unfragmented wildlife habitat, desert bighorn sheep, mule deer.
Sears Point (Gila River Cultural Area)	3,700 / 28,500*	28,500	Cultural resources, historic and prehistoric trails, migratory birds, riparian habitat.
Walters Camp	3,500	0	Cultural resources, migratory birds.

* Acreage for ACEC proposal varies by alternative.
** Expanded Sears Point ACEC is within the Gila River Terraces and Trails evaluation area.
ACEC = Area of Critical Environmental Concern; CMA = Coordinated Management Area; SCRMA = Special Cultural Resources Management Area; WHA = Wildlife Habitat Management Area

1.1 BIG MARIAS ACEC

1.1.1 RELEVANCE

A. A Significant Historic, Cultural, or Scenic Value

The Big Marias ACEC contains the single greatest concentration of geoglyphs in North America. The density of intaglio features in this ACEC is extremely rare and presents unique management challenges for cultural resource protection and opportunities for scientific research. The ground figures within the ACEC are known to be of tremendous importance to several Native American tribes. The Blythe Intaglios, one of the most well- known intaglio sites in the country, is a public use site that is located inside this ACEC. This prominent intaglio site was listed on the NRHP on August 22, 1975.

B. A Fish and Wildlife Resource

Desert bighorn sheep are known to inhabit the Big Maria Mountains within this ACEC. The Big Marias ACEC also contains habitat for the rosy boa snake, a special status species.

C. A Natural Process or System

Not applicable.

D. Natural Hazards

Not applicable.

1.1.2 IMPORTANCE

A. Has More Than Locally Significant Qualities Which Give It Special Worth, Consequence, Meaning, Distinctiveness, or Cause for Concern, Especially Compared to Any Similar Resource

The intaglio features found in this ACEC are of international significance. Similar ground figure techniques exist in Peru, Chile, England, and Australia. These delicate designs in the desert pavement, which can only be found in this region of the U.S., provide important insights into early lifeways along the lower Colorado River landscape. Two sensitive plant species that are known to occur within the ACEC, Alverson's foxtail cactus and barrel cactus, also make this area more than locally significant.

B. Has Qualities or Circumstances That Make It Fragile, Sensitive, Rare, Irreplaceable, Exemplary, Unique, Endangered, Threatened, or Vulnerable to Adverse Change

Intaglio designs are created on sensitive desert pavement surfaces by removing the darker surface gravels to reveal the lighter gravels and soils underneath. Consequently these features are extremely fragile and vulnerable to damage. Tracks caused by vehicle tires are currently the largest threat to the desert pavement designs. Other human uses of the area and natural processes, such as weathering of the ground surface, threaten the preservation of these features.

C. Has Been Recognized as Warranting Protection in Order to Satisfy National Priority Concerns or to Carry Out the Mandates of FLPMA

The potential for impacts to the ACEC's cultural resource values make this area a priority concern for management attention. Protection of this area's relevant and important features would carry out the FLPMA mandate to protect the quality of the planning area's scientific, ecological, environmental, and archeological values.

D. Has Qualities Which Warrant Highlighting in Order to Satisfy Public or Management Concerns About Safety and Public Welfare

Not applicable.

E. Poses a Significant Threat to Human Life and Safety or to Property

Not applicable.

1.1.3 PROPOSED PLAN MANAGEMENT STRATEGY

The resource values within the existing 4,500-acre Big Marias ACEC, originally designated in the 1987 Yuma District RMP, continue to warrant special management attention as an ACEC. The 4,700-acre expansion area evaluated under Alternative D does not require special management attention. In addition to standard or routine management prescriptions, under the Proposed Plan these 4,700 acres would be managed according to the Big Marias Terraces SCRMA and the Desert Mountains WHA allocations.

2.1 DRIPPING SPRINGS

2.1.1 RELEVANCE

A. A Significant Historic, Cultural, or Scenic Value

The proposed ACEC contains a combination of archaeological and historic features that are frequently visited by the public and that are eligible for listing on the NRHP. The indigenous features in the ACEC include a concentration of large petroglyph boulders that are an excellent example of the Patayan culture style. In addition, remains of historic habitation, such as a two-room stone cabin and several other smaller stone structures, add to the cultural resource values of the area. A mini oasis with rock outcroppings, sheer cliffs along the backdrop of the area, exposed bedrock, and significant cholla stands add to the scenic value of the proposed ACEC. A waterfall with seasonal flows is located within a canyon adjacent to the spring. The area has had unusual displays of wildflowers after rains.

B. A Fish and Wildlife Resource

The proposed Dripping Springs ACEC contains a watering hole that is an important source of water for wildlife in the area. The area is crucial bighorn sheep habitat. The bighorn sheep herd in the area is used as a source of sheep transplants. The spring is a perennial water source and the only natural spring within the planning area and this water is crucial for wildlife in times of drought. The area surrounding the spring supports a dense cover of native plants that provide refuge and forage for wildlife. Plant species in the area include willow, jojoba, mesquite, paloverde, scrub oak, wolfberry, primrose, cholla, desert lavender, saguaro, and native grasses and forbs. The area also supports an abundant pollinator population.

C. A Natural Process or System

The proposed Dripping Springs ACEC contains the only perennial spring in the planning area. This area also contains a relic stand of scrub oak, skunk bush, and other plants found in the chaparral of Arizona. Similar occurrences are documented in other southwestern Arizona mountains, such as the nearby Kofa Mountains (Brown 1978). The waterfall located in a canyon adjacent to the spring fills tinajas and potholes after rains. Surface waters in the area consist of the spring (primary), waterfall, and natural catchments, which have continued to function as a hydrologic system during extended droughts. Water is crucial to wildlife populations in times of drought.

D. Natural Hazards

This proposed ACEC area is prone to flash flooding.

2.1.2 IMPORTANCE

A. Has More Than Locally Significant Qualities Which Give It Special Worth, Consequence, Meaning, Distinctiveness, or Cause for Concern, Especially Compared to Any Similar Resource

The indigenous cultural features within the proposed ACEC tie into other Patayan sites throughout the region. The natural spring at the center of the ACEC is the only perennial spring in the planning area. The spring inside the proposed ACEC does not currently require human maintenance and should be protected because of the rarity of natural springs in the planning area. Any water in the desert is more than locally significant, due to the scarcity of water resources. The surface waters in the proposed ACEC sustain wildlife through long periods of drought. The area also provides connectivity to resources important to wildlife.

B. Has Qualities or Circumstances That Make It Fragile, Sensitive, Rare, Irreplaceable, Exemplary, Unique, Endangered, Threatened, or Vulnerable to Adverse Change

The petroglyph panels in the proposed ACEC, the historic structure remains, and other cultural resource features are vulnerable to vandalism, looting, and impacts from other land uses. Human visitation during hot and/or dry periods may impact wildlife use of the area. Impacts of visitation during these periods may need to be monitored. The proposed ACEC's proximity to the intensive recreational uses in and around the Town of Quartzsite increases the likelihood of recreational damage occurring to the resources. OHV use through the area increases the potential of non-native invasive species unintentionally being spread into the proposed ACEC.

C. Has Been Recognized as Warranting Protection in Order to Satisfy National Priority Concerns or to Carry Out the Mandates of FLPMA

The potential for impacts to the ACEC's natural and cultural resource values make this ACEC a BLM management priority. Protection of this area's relevant and important features would carry out the FLPMA mandate to protect the quality of the planning area's scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values.

D. Has Qualities Which Warrant Highlighting in Order to Satisfy Public or Management Concerns About Safety and Public Welfare

Soil erosion through natural flooding and weathering of bedrock limit the type of access that can be sustained in the area. Erosion has caused portions of the existing road within the proposed ACEC to become unsafe and poses a risk to public welfare.

E. Poses a Significant Threat to Human Life and Safety or to Property

Not applicable.

2.1.3 PROPSED PLAN MANAGEMENT STRATEGY

Under the Proposed Plan, 11,700 acres at Dripping Springs would be designated as an ACEC. This area warrants special management attention to manage the high amount of recreational use in the area while simultaneously protecting the area's relevant and important resource values.

3.1 GILA RIVER TERRACES AND TRAILS

3.1.1 RELEVANCE

A. A Significant Historic, Cultural, or Scenic Value

The proposed Gila River Terraces and Trails ACEC follows the course of the Gila River, which was a vital lifeline in the desert from Archaic times through the historic period. Indigenous cultural sites are scatted throughout the river valley, and together these sites along the Gila River create a significant landscape of traditional importance to Native American tribes. This proposed ACEC corridor is also known as an important historic travel route, with several important historic trails following the course of the Gila River, including the Anza Trail, Mormon Battalion Trail, Butterfield Overland Mail Route, and the Gila Trail. The proposed ACEC area includes the existing Sears Point (Gila River Cultural Area) ACEC with all of its relevant and important values. Scenic vistas are common throughout much of the proposed ACEC, particularly during rare high flow events of the Gila River.

B. A Fish and Wildlife Resource

A portion of the Fred J. Weiler Greenbelt (described in Chapter 3) is located within this ACEC. The Fred J. Weiler Greenbelt provides riparian habitat for marshbirds, waterfowl, raptors, and shorebirds, including Yuma clapper rail, and habitat for white-winged dove, mourning dove, and other game birds. The area provides outstanding recreational opportunities as a hunting destination.

C. A Natural Process or System

Desert pavement occurs on the terraces above the Gila River and provides runoff water to the surrounding wash and riparian habitats.

D. Natural Hazards

Not applicable.

3.1.2 IMPORTANCE

A. Has More Than Locally Significant Qualities Which Give It Special Worth, Consequence, Meaning, Distinctiveness, or Cause for Concern, Especially Compared to Any Similar Resource

The cultural resources on the terraces above the Gila River connect with a network of cultural sites further east, including Sears Point and Painted Rocks, and to the network of village sites along the Colorado River. The Anza Trail is distinctive for its connectivity between northern California and Mexico, and there is an international effort to manage this trail. The other historic trails that traverse the area are of special worth and warrant interpretation and special management. The Gila corridor is a popular regional hunting destination, attracting visitors during dove season. Cattail marsh provides important habitat for the endangered Yuma clapper rail.

B. Has Qualities or Circumstances That Make It Fragile, Sensitive, Rare, Irreplaceable, Exemplary, Unique, Endangered, Threatened, or Vulnerable to Adverse Change

Desert pavement within the proposed ACEC is fragile and subject to increased wind and water erosion when disturbed by mechanical means. Any increase in soil erosion would increase sediment deposits into the Gila River bed. The wildlife, cultural, and scenic values are threatened by increased development on land adjacent and within the proposed ACEC. The cultural resources on the desert pavement terraces are vulnerable to damage from OHV, other human-caused impacts, and natural deterioration.

C. Has Been Recognized as Warranting Protection in Order to Satisfy National Priority Concerns or to Carry Out the Mandates of FLPMA

Portions of the proposed ACEC were covered in the Anza Trail NPS Management Plan. Cultural resources found within the proposed ACEC are listed on or eligible to the NRHP. A portion of the Fred J. Weiler Greenbelt (described in Chapter 3) is also located within this proposed ACEC.

D. Has Qualities Which Warrant Highlighting in Order to Satisfy Public or Management Concerns About Safety and Public Welfare

Not applicable.

E. Poses a Significant Threat to Human Life and Safety or to Property

Not applicable.

3.1.3 PROPOSED PLAN MANAGEMENT STRATEGY

This area was evaluated for ACEC designation because the adjacent Lower Sonoran Field Office evaluated a similar proposal for the Gila River corridor within their planning area. In the YFO, BLM has management authority on only 52,300 acres of the 140,400-acre corridor evaluated for ACEC designation under Alternative D. These 52,300 acres are not contiguous and would be better managed according to standard or routine management prescriptions. In addition, under the Proposed Plan portions of the BLM-administered lands within this area would be managed according to prescriptions for the Sears Point ACEC and Anza Trail designations, and the Laguna Mountains SCRMA, Ligurta Area SCRMA, Muggins Mountains Terraces SCRMA, North Gila Mountains SCRMA, Fred J. Weiler Greenbelt VHA, and Gila River Riparian WHA allocations.

4.1 LIMITROPHE

4.1.1 RELEVANCE

A. A Significant Historic, Cultural, or Scenic Value

The proposed Limitrophe ACEC is known to have traditional use values that are of importance to many Native American tribes. Native American traditional uses of the area include tribal education, gathering, hunting and fishing; collection of mesquite wood for funerary and construction purposes; collection of willow for basket materials; possibly collection of clay used for pottery making; and collection of river rocks. The area is internationally significant because indigenous peoples live on both sides of the border, in the U.S. and Mexico. It is a cultural landscape to practice traditional beliefs based on the river.

B. A Fish and Wildlife Resource

The proposed Limitrophe ACEC contains habitat for migratory neotropical songbird populations; migratory waterfowl, shorebirds, wading birds, burrowing owl, western yellow-billed cuckoo, and other wetland dependent species; and endangered species such as the SWFL and Yuma clapper rail. This area is an important migratory corridor, provides forage and cover for a variety of wildlife species, and provides a water source, which is crucial for wildlife during times of drought. The opportunities to enhance and restore cottonwood and willow communities would increase populations of birds and provide more birding opportunities. Loss of habitat in other areas is concentrating wildlife to the Limitrophe area.

C. A Natural Process or System

This portion of the lower Colorado River is one of the largest remaining contiguous tracts of native cottonwood-willow riparian vegetation, despite its interspersion with salt cedar. It contains a representative of every major tree type found in southern Arizona. Native trees are reestablishing in areas that have been cleared of salt cedar. Water table fluctuations as a result of releases from Morelos Dam and agriculture return flows are beneficial to native species.

Although the Gila and Colorado rivers stream flows are manipulated by man, the local area retains natural qualities due to surface water fluctuations and groundwater changes. Future water delivery and retention actions by Reclamation upstream could reduce the presence of surface water in the area.

D. Natural Hazards

Frequent fires reduce the presence of valuable native vegetation and promote the overgrowth of salt cedar in the Limitrophe area. These fires are usually caused by humans.

4.1.2 IMPORTANCE

A. Has More Than Locally Significant Qualities Which Give It Special Worth, Consequence, Meaning, Distinctiveness, or Cause for Concern, Especially Compared to Any Similar Resource

The Limitrophe area is of international concern. The group Colorado River International Conservation Area was formed to promote the protection of the area. In addition, the Limitrophe area is of traditional value to several Native American tribes and groups. A large variety of wildlife habitats are found within the relatively small Limitrophe area.

B. Has Qualities or Circumstances That Make It Fragile, Sensitive, Rare, Irreplaceable, Exemplary, Unique, Endangered, Threatened, or Vulnerable to Adverse Change

The remnants of the riparian woodland gallery are threatened by: high fire occurrence; the lack of water due to river operations and local groundwater pumping to maintain the local water table at an appropriate level for agriculture; and drought. The Limitrophe area resources are vulnerable due to the lack of water in the hydrologic system and the unpredictability and/or infrequency of water flows. The Limitrophe is a critical area for Native American traditional practices, and traditional use of the Limitrophe is threatened, if natural and cultural resource values are impacted or degraded.

C. Has Been Recognized as Warranting Protection in Order to Satisfy National Priority Concerns or to Carry Out the Mandates of FLPMA

This area is important to satisfy BLM recreation priorities, and protection of this area is applicable to FLPMA mandates for natural resources, cultural resources, and recreation. Neotropical migratory birds and threatened and endangered species are national priorities to the USFWS. Wetlands in the area are regulated as waters of the U. S. by the USACOE. Recreation opportunities are severely limited due to public safety and access issues. The Cocopah Indian Tribe recognized this area as important on a national level and requested national recognition of the area as an International Wildlife Refuge from officials in Washington, D.C.

D. Has Qualities Which Warrant Highlighting in Order to Satisfy Public or Management Concerns About Safety and Public Welfare

Criminal activity in the Limitrophe area has an impact on all resources. There is a constant concern for public safety due to its location on the International Boundary. Criminal activity, diversionary fires, and litter associated with illegal border trafficking of humans and illegal items are a constant concern for law enforcement, government employees, residents, hunters, farmers and the recreating public present in the area. Resolutions to these safety issues need to be coordinated among many different agencies.

E. Poses a Significant Threat to Human Life and Safety or to Property

There are increasing concerns for public safety in the Limitrophe area; injuries and fatalities have occurred within the area. The area is a major trafficking route for illegal immigration. Border crossers build sand bag bridges underwater that can create a hazard to the public.

4.1.3 PROPOSED PLAN MANAGEMENT STRATEGY

Alternative D evaluates a proposal to designate 4,500 acres as the Limitrophe ACEC. Due to the complex issues and overlapping jurisdictions of the Limitrophe, no single agency has the authority or capacity to comprehensively manage the entire area. Under the Proposed Plan, standard and routine management prescriptions plus management prescriptions associated with the Limitrophe CMA would enable all interested stakeholders, including those in Mexico, to participate in the development of the first multi-jurisdictional MOU and management plan for the area. In addition, the area would be managed according to prescriptions for the Colorado River Riparian WHA allocation.

5.1 PALOMAS PLAIN

5.1.1 RELEVANCE

A. A Significant Historic, Cultural, or Scenic Value

The proposed Palomas Plain ACEC is located in a rugged Sonoran desert range of basalt and volcanics cut by two 800-foot-deep canyons and numerous small canyons around the Little Horn Mountains, which includes portions of the Ranegrass Plain, Palomas Plains, and Nottebusch Butte. The red, buff, and yellow canyons show a striking geologic color contrast. There are vast areas of relatively undisturbed desert pavement, which contrast with the surrounding mountains. There are known cultural resources in the area, which are likely eligible to the NRHP.

B. A Fish and Wildlife Resource

This proposed ACEC is an expansive unfragmented habitat in southwest Arizona where a large variety of wildlife, including bighorn sheep and mule deer, can be found.

C. A Natural Process or System

This proposed ACEC contains braided channel floodplains and mixed cacti-paloverde communities on rocky slopes and bajadas.

D. Natural Hazards

Not applicable.

5.1.2 IMPORTANCE

A. Has More Than Locally Significant Qualities Which Give It Special Worth, Consequence, Meaning, Distinctiveness, or Cause for Concern, Especially Compared to Any Similar Resource

The contiguous tract of unfragmented habitat supports big game populations that are regionally significant to the hunting community and the AGFD's management of these species. This area is a potential reintroduction area for the endangered Sonoran pronghorn. Portions of this area are Category II desert tortoise habitat.

B. Has Qualities or Circumstances That Make It Fragile, Sensitive, Rare, Irreplaceable, Exemplary, Unique, Endangered, Threatened, or Vulnerable to Adverse Change

The proximity of this proposed ACEC to YPG makes it vulnerable to a variety of disturbances. OHV and other disturbances to the desert pavement increase wind and water erosion from the area and degrade habitat quality. Increased development threatens fragmentation of what is currently contiguous habitat.

C. Has Been Recognized as Warranting Protection in Order to Satisfy National Priority Concerns or to Carry Out the Mandates of FLPMA

Protection of this area is applicable to FLPMA mandates for natural and cultural resources.

D. Has Qualities Which Warrant Highlighting in Order to Satisfy Public or Management Concerns About Safety and Public Welfare

Not applicable.

E. Poses a Significant Threat to Human Life and Safety or to Property

Not applicable.

5.1.3 PROPOSED PLAN MANAGEMENT STRATEGY

Alternative D evaluates a proposal to designate 429,900 acres as the Palomas Plain ACEC. It was determined that this area does not require special management attention. In addition to standard or routine management prescriptions, under the Proposed Plan the Palomas Plain would be managed according to prescriptions for the Palomas Plain WHA and Desert Mountains WHA allocations.

6.1 SEARS POINT (GILA RIVER CULTURAL AREA ACEC)

6.1.1 RELEVANCE

A. A Significant Historic, Cultural, or Scenic Value

The Sears Point ACEC contains the Sears Point Archaeological District, which was listed on the NRHP in 1985. Occupation of the Sears Point area spanned over thousands of years and is evidenced by extensive rock art panels concentrated along the basalt mesas overlooking the Gila River. The ACEC contains a rare example of a combination of elements from three archaeological cultures. First the Desert Archaic and then the Patayan and Hohokam cultures contributed to the petroglyphs at Sears Point. In addition, the ACEC is along an historic travel corridor with portions of the Anza Trail, Butterfield Overland Mail Route, Mormon Battalion Trail, and the Gila Trail all following the same course along the Gila River floodplain. The scenic values of this area include volcanic geology, prominent mesas, riparian vegetation, and the absence of levees.

B. A Fish and Wildlife Resource

This ACEC contains a mesquite bosque composed of mature mesquite trees that provides habitat for quail, dove, deer, and a variety of other wildlife species. In 1954, a segregation order on the Fred J. Weiler Greenbelt withdrew a total of 62,735 acres under Public Land Order 1015 for wildlife habitat. BLM manages 12,400 acres of the Fred J. Weiler Greenbelt, of which a portion overlaps with the existing and proposed Sears Point ACEC (see Chapter 3, Section 3.16.2 b for additional information).

C. A Natural Process or System

The mesquite bosque within the Sears Point ACEC is the largest and oldest in the planning area. Salt cedar has not invaded several of the mesquite stand areas. The floodplain at this location has not been modified for agriculture or flood control. The Gila River maintains the hydrological

function of the natural floodplain when the river is at flood stage, such as during the 1993 flood or during the releases from Painted Rock Dam in 2005.

D. Natural Hazards

Not applicable.

6.1.2 IMPORTANCE

A. Has More Than Locally Significant Qualities Which Give It Special Worth, Consequence, Meaning, Distinctiveness, or Cause for Concern, Especially Compared to Any Similar Resource

The rock art at Sears Point is one of the most extensive examples of petroglyphs in Arizona and has become an international tourist destination. The location is also significant through its association with the congressionally designated Anza Trail, which connects Mexico to San Francisco, California. In addition, the area is of known importance to several Native American tribes.

B. Has Qualities or Circumstances That Make It Fragile, Sensitive, Rare, Irreplaceable, Exemplary, Unique, Endangered, Threatened, or Vulnerable to Adverse Change

The archaeological district at Sears Point contains a rare density of cultural features for this corner of the Sonoran Desert. The area's indigenous artifact scatters, intaglios, trail network, and other desert pavement features are extremely fragile and vulnerable to impacts from other land uses such as recreational OHV. The ACEC's basalt mesas contain one of the most extensive examples of petroglyphs in the region, and these panels are a unique and irreplaceable part of America's heritage that requires increased protection to prevent looting and vandalism.

C. Has Been Recognized as Warranting Protection in Order to Satisfy National Priority Concerns or to Carry Out the Mandates of FLPMA

FLPMA directs the BLM to manage the public lands "in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values." The relevance and importance of this ACEC illustrates this area's extensive natural and cultural resource values. The potential for impacts to the ACEC's archaeological features, geologic features, and riparian vegetation, including the mesquite bosque and Fred J. Weiler Greenbelt, make this ACEC a BLM management priority.

D. Has Qualities Which Warrant Highlighting in Order to Satisfy Public or Management Concerns About Safety and Public Welfare

Not applicable.

E. Poses a Significant Threat to Human Life and Safety or to Property

Not applicable.

6.1.4 PROPOSED PLAN MANAGEMENT STRATEGY

The existing 3,700-acre Sears Point ACEC, originally designated in the 1988 Lower Gila South RMP, and an additional 24,800 acres in the Sears Point area were evaluated for ACEC designation in this plan. It was determined that the entire 28,500-acre area requires special management attention to manage the increasing amount of recreational use in the area while simultaneously protecting the relevant and important resource values at Sears Point.

7.1 WALTERS CAMP

7.1.1 RELEVANCE

A. A Significant Historic, Cultural, or Scenic Value

The proposed Walters Camp ACEC area links two national wildlife refuges and contains significant cultural resources important to Native American tribes. Hills within the proposed ACEC overlook both wildlife refuges and offer a panoramic view of five Wilderness areas: Palo Verde Mountains, Trigo Mountains, Imperial, Indian Pass, and Picacho Peak. The area includes a complex of archaeological resources, including the Xam Kwitcam creation trail, that are eligible to the NRHP.

B. A Fish and Wildlife Resource

The proposed ACEC includes 400 feet of undeveloped river bank with a wetlands/riparian area that is potential habitat for endangered species, including the SWFL and Yuma clapper rail. The proposed ACEC includes the Walker Lake wetlands habitat adjacent to the river.

C. A Natural Process or System

The area incorporates a variety of plant communities, including desert mountain foothills, wash and floodplain, and creosote bush flats. Spontaneous thunderstorms transform Milpitas, Vinagre, and Turnaround Washes into rivers as evidenced by hundreds of sheer cliffs, canyons, and rock formations.

D. Natural Hazards

Not applicable.

7.1.2 IMPORTANCE

A. Has More Than Locally Significant Qualities Which Give It Special Worth, Consequence, Meaning, Distinctiveness, or Cause for Concern, Especially Compared to Any Similar Resource

The proposed Walters Camp ACEC is important for neotropical migratory birds because it provides stopover habitat along the lower Colorado River portion of the Pacific Flyway. The Xam Kwitcam creation trail extends between Avikwame near Laughlin, Nevada to Yuma, Arizona. The archaeological sites in the proposed ACEC are of significance to several Native American tribes and are an example of cultures living prehistorically along the lower Colorado River.

B. Has Qualities or Circumstances That Make It Fragile, Sensitive, Rare, Irreplaceable, Exemplary, Unique, Endangered, Threatened, or Vulnerable to Adverse Change

The proposed ACEC contains cultural resources that are delicate and in need of additional protection measures from visitor use damages, such as from OHV use. Vacation home development along the river on adjacent private lands is increasing visitor use of the area, which could result in damage to the proposed ACECs natural and cultural resources. Increased use would detract from the existing undeveloped nature of the area.

C. Has Been Recognized as Warranting Protection in Order to Satisfy National Priority Concerns or to Carry Out the Mandates of FLPMA

Protection of this area is applicable to FLPMA mandates for natural and cultural resources. There are cultural resource sites that are eligible to the NRHP and should be nominated for listing under Section 110 of the NHPA.

D. Has Qualities Which Warrant Highlighting in Order to Satisfy Public or Management Concerns About Safety and Public Welfare

Not applicable.

E. Poses a Significant Threat to Human Life and Safety or to Property

Not applicable.

7.1.4 PROPOSED PLAN MANAGEMENT STRATEGY

Alternative D evaluates a proposal to designate 3,500 acres as the Walters Camp ACEC. It was determined that standard or routine management prescriptions would be sufficient for managing the Walters Camp area. Under the Proposed Plan, the Walters Camp area would be managed

according to prescriptions for the Walters Camp SCRMA and Colorado River Riparian WHA allocations.

LISTS OF FEDERALLY PROTECTED, STATE LISTED, SPECIAL STATUS, PRIORITY, AND INVASIVE SPECIES IN PLANNING AREA

Table 1
Federally-Protected Species (Listed, Proposed, Candidate) in Arizona and California Considered in the Planning Area

Common Name	Scientific Name	Status	Vegetation Community	County
Mammals (1 species)				
Sonoran pronghorn	*Antilocapra americana sonoriensis*	Endangered	Sonoran Desert Scrub	Maricopa, Yuma (AZ)
Birds (6 species)				
California brown pelican	*Pelecanus occidentalis californicus*	Endangered	Riparian/Aquatic	La Paz, Maricopa, Yuma (AZ)
Northern aplomado falcon	*Falco femoralis septentrionalis*	Endangered, Proposed NEP	Semidesert Grassland	Yuma (AZ) Extirpated from AZ
Southwestern willow flycatcher	*Empidonax traillii extimus*	Endangered, Proposed Critical Habitat	Riparian	La Paz, Maricopa, Yuma (AZ)
Yuma clapper rail	*Rallus longirostris yumanensis*	Endangered	Riparian	La Paz, Maricopa, Yuma (AZ)
Western yellow-billed cuckoo	*Coccyzus americanus*	Candidate	Riparian	La Paz, Maricopa, Yuma (AZ)
Reptiles (1 species)				
Desert tortoise, Mojave population	*Gopherus agassizii (xerobates)*	Threatened	Mohave Desert Scrub, Lower Sonoran Desert Scrub	Riverside, Imperial (CA)
Fish (4 species)				
Bonytail chub	*Gila elegans*	Endangered	Riparian/Aquatic within Sonoran Desert Scrub	La Paz (AZ)
Razorback sucker	*Xyrauchen texanus*	Endangered, Designated Critical Habitat	Riparian/Aquatic within Mohave Desert Scrub, Lower Sonoran Desert Scrub, Semi-desert Grassland	La Paz, Maricopa, Yuma (AZ)
Desert pupfish	*Cyprinodon macularius*	Endangered	Riparian/Aquatic within Upland Sonoran Desert Scrub	Extirpated from planning area
Gila topminnow	*Poeciliopsis occidentalis occidentalis*	Endangered	Riparian/Aquatic within Upland Sonoran Desert Scrub	Extirpated from planning area

AZ – Arizona; CA – California; NEP – Nonessential Experimental Population

Table 2
BLM Sensitive and State Species of Concern in Arizona and California Considered in the Planning Area

Common Name	SCIENTIFIC NAME	Status
Mammals		
Bats		
Allen's (Mexican) big-eared bat	*Idionycteris phyllotis*	BLM
Arizona myotis	*Myotis lucifugus occultus*	BLM, CASC
Big free-tailed bat	*Nyctinomops macrotis*	BLM, CASC
California leaf-nosed bat	*Macrotus californicus*	AZSC, CASC
Cave myotis	*Myotis velifer*	BLM, CASC
Fringed myotis	*Myotis thysanodes*	BLM
Greater western mastiff bat	*Eumops perotis californicus*	CASC
Mexican long-tongued bat	*Choeronycteris mexicana*	AZSC, CASC
Pallid bat	*Antrozous pallidus*	CASC
Pale Townsend's big-eared bat	*Corynorhinus townsendii*	CASC
Pocketed free-tailed bat	*Nyctinomops femorosaccus*	BLM, CASC
Spotted bat	*Euderma maculatum*	AZSC, CASC
Western red bat	*Lasiurus blossevillii*	AZSC
Western yellow bat	*Lasiurus xanthinus*	AZSC
Western small-footed myotis	*Myotis ciliolabrum*	BLM
Rodents		
Colorado River cotton rat	*Sigmodon arizonae plenus*	CASC
Yuma hispid cotton rat	*Sigmodon hispidus eremicus*	CASC
Large Mammals		
Yuma mountain lion	*Puma concolor browni*	AZSC, CASC
Birds		
Grebes		
Clark's grebe	*Aechmophorus clarki*	AZSC
Pelicans		
American white pelican	*Pelecanus erythrorhynchos*	CASC
Cormorants		
Double-crested cormorant	*Phalacrocorax auritus*	CASC[3]
Herons, Egrets, Bitterns		
American bittern	*Botaurus lentiginosus*	AZSC
Western least bittern	*Ixobrychus exilis hesperis*	AZSC, CASC
Great egret	*Casmerodius albus*	AZSC
Snowy egret	*Egretta thula*	AZSC
Ibises & Spoonbills		
White-faced ibis	*Plegadis chihi*	CASC[3]
Storks		
Wood stork	*Mycteria americana*	CASC
Swans, Geese & Ducks		
Fulvous whistling duck	*Dendrocygna bicolor*	CASC

Table 2
BLM Sensitive and State Species of Concern in Arizona and California Considered in the Planning Area

Common Name	SCIENTIFIC NAME	Status
Birds (cont.)		
Hawks, Kites & Eagles		
Osprey	*Pandion haliaetus*	AZSC
Northern harrier	*Circus cyaneus*	CASC
Cooper's hawk	*Accipiter cooperi*	CASC[3]
Common black hawk	*Buteogallus anthracinus*	AZSC
Swainson's hawk	*Buteo swainsoni*	CAT
Harris' hawk	*Parabuteo unicinctus*	CASC
Ferruginous hawk	*Buteo regalis*	AZSC, CASC
Bald eagle	*Haliaeetus leucocephalus*	AZSC, CASC
Golden eagle	*Aquila chrysaetos*	CAFP
Falcons & Caracaras		
Merlin	*Falco columbarius*	CASC[3]
Peregrine falcon	*Falcoperegrinus anatum*	AZSC, CAE, CAFP
Prairie falcon	*Falco mexicanus*	CASC
Rails, Gallinules & Coots		
California black rail	*Laterallus jamaicensis coturniculus*	AZSC, CAT
Plovers		
Snowy plover	*Charadrius alexandrinus*	AZSC, CASC
Mountain plover	*Charadrius montanus*	CASC
Sandpipers & Allies		
Long-billed curlew	*Numenius americanus*	CASC[3]
Gulls, Terns & Allies		
Black tern	*Chlidonias niger*	CASC
California gull	*Larus californicus*	CASC[3]
Owls		
Cactus ferruginous pygmy-owl	*Glaucidium brasilianum*	AZSC
Elf owl	*Micrathene whitneyi*	CAE
Long-eared owl	*Asio otus*	CASC
Short-eared owl	*Asio flammeus*	CASC
Western burrowing owl	*Athene cunicularia hypugea*	BLM, CASC
Swifts		
Vaux's swift	*Chaetura vauxi*	CASC
Kingfishers		
Belted kingfisher	*Ceryle alcyon*	AZSC
Woodpeckers		
Gila woodpecker	*Melanerpes uropygialis*	CAE
Gilded flicker	*Colaptes chrysoides*	CAE
Tyrant Flycatchers		
Brown-crested flycatcher	*Myiarchis tyrannulus*	CASC[3]
Thick-billed kingbird	*Tyrannus crassirostris*	AZSC
Vermilion flycatcher	*Pyrocephalus rubinus*	CASC
Swallows		
Bank swallow	*Riparia riparia*	CAT
Purple martin	*Progne subis*	CASC

Table 2
BLM Sensitive and State Species of Concern in Arizona and California Considered in the Planning Area

Common Name	SCIENTIFIC NAME	Status
Birds (cont.)		
Mockingbirds & Thrashers		
Bendire's thrasher	*Toxostoma bendirei*	CASC
Crissal's thrasher	*Toxostoma crissale*	CASC
Gray catbird	*Dumetella carolinensis*	AZSC
Le Conte's thrasher	*Toxostoma lecontei*	CASC
Shrikes		
Loggerhead shrike	*Lanius ludovicianus*	CASC
Vireos		
Arizona's bell vireo	*Vireo belli arizonae*	CAE
Wood-Warblers		
American redstart	*Setophaga ruticilla*	AZSC
Sonoran yellow warbler	*Dendroica petechia sonorana*	CASC
Yellow-breasted chat	*Icteria virens*	CASC
Tanagers		
Summer tanager	*Piranga rubra*	CASC
Cardinals		
Northern cardinal	*Cardinalis cardinalis*	CASC[3]
Sparrows		
Bell's sage sparrow	*Aimophila belli bellii*	CASC
Large-billed savannah sparrow	*Passerculus sandwichensis rostratus*	CASC
Reptiles		
Banded Gila monster	*Heloderma suspectum cinctum*	BLM, CASC
Chuckwalla	*Sauromalus ater*	BLM
Flat-tailed horned lizard	*Phrynosoma mcallii*	AZSC
Mojave fringe-toed lizard	*Uma scoparia*	AZSC
Rosy boa	*Charina trivirgata*	BLM
Sonoran Desert tortoise	*Gopherus agassizii*	AZSC
Yuma desert (Cowles) fringe-toed lizard	*Uma notata rufopunctata*	AZSC
Amphibians		
Colorado River toad	*Bufo alvarius*	CASC
Couch's spadefoot toad	*Scaphiopus couchii*	CASC
Lowland leopard frog	*Rana yavapaiensis*	AZSC, CASC
Fish		
None		
Invertebrates		
Cheese-weed moth lacewing	*Oliarces clara*	BLM
MacNeill sooty wing skipper	*Hesperopsis gracielae*	BLM

AZSC – Arizona Species of Concern; BLM – BLM Sensitive; CAE – California Endangered; CAFP – California Fully Protected; CASC – California Species of Concern; CAT – California Threatened

Table 3
BLM Priority Animal Species Considered in the Planning Area

Common Name	SCIENTIFIC NAME	Status
Bats		
Lesser long-nosed Bat	*Leptonycteris curasoae*	Rare
California Myotis	*Myotis californicus*	Common
Silver-haired Bat	*Lasionycteris noctivagans*	Rare
Western Pipistrelle	*Pipistrellus hesperus*	Common
Big Brown Bat	*Eptesicus fuscus*	Locally common
Hoary Bat	*Lasiurus cinerus*	Rare
Spotted Bat	*Euderma maculatum*	Rare
Townsend's Big-eared Bat	*Plecotus townsendi*	Rare
Pallid Bat	*Antrozous pallidus*	Locally Common
American Free-tailed Bat	*Tadaria brasiliensis*	Common
Pocketed Free-tailed Bat	*Tadaria femorosaccus*	Uncommon
Big Game		
Mule Deer	*Odocoileus hemionus*	Common
Desert Bighorn Sheep	*Ovis Canadensis Mexicana*	Locally common
Collard Peccary	*Pecari tajacu*	Uncommon
Mountain Lion	*Puma concolor*	Rare
Game Birds		
Mourning Dove	*Zenaida macroura*	Common, year-round
White-winged Dove	*Zenaida asiatica*	Common, summer
Gambel's Quail	*Callipepla gambelii*	Common, year-round
Ring Necked Pheasant	*Phasianus colchicus*	Uncommon, year-round
Nongame Migratory Birds (Migratory Bird Treaty Act) and Raptors		
Loons		
Pacific Loon	*Gavia pacifica*	Rare, winter
Common Loon	*Gavia immer*	Uncommon, winter
Grebes		
Pied-billed Grebe	*Podilymbus podiceps*	Common, year-long
Eared Grebe	*Podilymbus nigricollis*	Uncommon, winter
Western Grebe	*Aechmophorus occidentallis*	Common, year-round
Clark's Grebe	*Aechmophorus clarkii*	Common, year-round
Pelicans		
American White Pelican	*Pelecanus erythrorhynchos*	Uncommon, year-round
Cormorants		
Double-breasted Comorant	*Phalacrocorax auritus*	Common, year-round
Herons, Egrets, Bitterns		
American Bittern	*Botaurus lentiginosus*	Rare, winter
Least Bittern	*Ixobrychus exilis*	Uncommon, year-round
Great Blue Heron	*Ardea herodias*	Common, year-round
Great Egret	*Ardea alba*	Common, year-round
Snowy Egret	*Egretta thula*	Common, year-round
Little Blue Heron	*Egretta caerulea*	Rare, transient
Cattle Egret	*Bubulcus ibis*	Uncommon, year-round
Green Heron	*Butorides virescens*	Uncommon, year-round
Black-crowned Night Heron	*Nycticorax nycticorax*	Common, year-round
Ibises & Spoonbills		
White-faced Ibis	*Eudocimus albus*	Uncommon, year-round

Table 3
BLM Priority Animal Species Considered in the Planning Area (cont.)

Common Name	SCIENTIFIC NAME	Status
Nongame Migratory Birds (Migratory Bird Treaty Act) and Raptors (cont.)		
Storks		
Wood Stork	*Mycteria americana*	Rare, summer
Swans, Geese & Ducks		
Fulvous Whistling-Duck	*Dendrocygna bicolor*	Rare, summer
Tundra Swan	*Cygnus columbianus*	Rare, winter
Greater White-fronted Goose	*Anser albifrons*	Rare, winter
Snow Goose	*Chen caerulescens*	Uncommon, winter
Ross's Goose	*Chen rossii*	Rare, winter
Canada Goose	*Branta Canadensis*	Common, winter
Wood Duck	*Aix sponsa*	Rare, winter
Green-winged Teal	*Anas crecca*	Common, winter
Mallard	*Anas platyrhynchos*	Common, winter
Northern Pintail	*Anas acuta*	Common, winter
Blue-winged Teal	*Anas discors*	Uncommon, transient
Cinnamon Teal	*Anas cyanoptera*	Common, year-round
Northern Shoveler	*Anas clypeata*	Common, winter
Gadwall	*Anas strepera*	Common, winter
American Wigeon	*Anas americana*	Common, winter
Canvasback	*Aythya valisneria*	Uncommon, winter
Redhead	*Aythya americana*	Uncommon, winter
Ring-necked Duck	*Aythya collaris*	Common, winter
Greater Scaup	*Aythya marila*	Rare, winter
Lesser Scaup	*Aythya affinis*	Common, winter
Common Goldeneye	*Bucephala clangula*	Common, winter
Barrow's Goldeneye	*Bucephala islandica*	Common, winter
Bufflehead	*Bucephala albeola*	Common, winter
Hooded Merganser	*Lophodytes cucullatus*	Rare, winter
Common Merganser	*Mergus merganser*	Common, winter
Red-breasted Merganser	*Mergus serrator*	Uncommon, winter
Ruddy Duck	*Oxyura jamaicensis*	Common, winter
American Vultures		
Turkey Vulture	*Cathartes aura*	Common, year-round
Hawks, Kites & Eagles		
Osprey	*Pandion haliaetus*	Common, year-round
White-tailed Kite	*Elanus leucurus*	Rare, winter
Bald Eagle	*Haliaeetus leucocephalus*	Uncommon, year-round
Northern Harrier	*Circus cyaneus*	Uncommon, winter
Sharp-shinned Hawk	*Accipiter striatus*	Uncommon, winter
Cooper's Hawk	*Accipiter cooperii*	Uncommon, year-round
Common Black-Hawk	*Buteogallus anthracinus*	Rare, summer
Harris' Hawk	*Parabuteo unicinctus*	Uncommon, year-round
Swainson's Hawk	*Buteo swainsoni*	Uncommon, transient
Zone-tailed Hawk	*Buteo albonotatus*	Rare, summer
Red-tailed Hawk	*Buteo jamaicensis*	Rare, summer
Ferruginous Hawk	*Buteo regalis*	Uncommon, winter
Rough-legged Hawk	*Buteo lagopus*	Rare, winter
Golden Eagle	*Aguila chrysaetos*	Uncommon, year-round

Table 3
BLM Priority Animal Species Considered in the Planning Area (cont.)

Common Name	SCIENTIFIC NAME	Status
Nongame Migratory Birds (Migratory Bird Treaty Act) and Raptors (cont.)		
Falcons & Caracaras		
American Kestrel	*Falco sparverius*	Common, year-round
Merlin	*Falco columbarius*	Uncommon, winter
Peregrine Falcon	*Faldo peregrinus*	Rare, transient
Prairie Falcon	*Falco mexicanus*	Uncommon, year-round
Rails, Gallinules & Coots		
Black Rail	*Laterallus jamaicensis*	Uncommon, year-round
Clapper Rail	*Rallus longirostris*	Uncommon, year-round
Virginia Rail	*Rallus limicola*	Uncommon, year-round
Sora	*Porzana carolina*	Uncommon, winter
Common Moorhen	*Gallinula chloropus*	Uncommon, year-round
American Coot	*Fulica americana*	Common, year-round
Cranes		
Sandhill Crane	*Grus canadensis*	Uncommon, winter
Plovers		
Black-bellied Plover	*Pluvialis squatarola*	Uncommon, transient
Snowy Plover	*Charadrius alexandrinus*	Rare, transient
Semipalmated Plover	*Charadrius semipalmatus*	Uncommon, transient
Killdeer	*Charadrius vociferous*	Common, year-round
Mountain Plover	*Charadrius montanus*	Rare, winter
Avocets & Stilts		
Black-necked Stilt	*Himantopus mexicanus*	Uncommon, year-round
American Avocet	*Recurvirostra americana*	Uncommon, transient
Sandpipers & Allies		
Greater Yellowlegs	*Tringa melanoleuca*	Uncommon, winter
Lesser Yellowlegs	*Tringa flavipes*	Uncommon, transient
Solitary Sandpiper	*Tringa solitaria*	Uncommon, winter
Willet	*Catoptrophorus semipalmatus*	Uncommon, transient
Spotted Sandpiper	*Actitis macularia*	Common, winter
Whimbrel	*Numenius phaeopus*	Rare, transient
Long-billed Curlew	*Numenius americanus*	Uncommon, transient
Marbled Godwit	*Limosa fedoa*	Uncommon, transient
Red Knot	*Calidris canutus*	Rare, transient
Sanderling	*Calidris alba*	Rare, transient
Western Sandpiper	*Calidris mauri*	Common, transient
Least Sandpiper	*Calidris minutilla*	Common, winter
Baird's Sandpiper	*Calidris bairdii*	Uncommon, transient
Pectoral Sandpiper	*Calidris melanotos*	Uncommon, transient
Dunlin	*Calidris alpina*	Uncommon, winter
Short-billed Dowitcher	*Limnodromus griseus*	Rare, transient
Long-billed Dowitcher	*Limnodromus scolopaceus*	Common, winter
Common Snipe	*Gallinago gallinago*	Common, winter
Wilson's Phalarope	*Phalaropus tricolor*	Uncommon, transient
Red-necked Phalarope	*Phalaropus lobatus*	Rare, transient

Table 3
BLM Priority Animal Species Considered in the Planning Area (cont.)

Common Name	SCIENTIFIC NAME	Status
Nongame Migratory Birds (Migratory Bird Treaty Act) and Raptors (cont.)		
Gulls, Terns & Allies		
Franklin's Gull	*Larus pipixcan*	Rare, transient
Bonaparte's Gull	*Larus philadelphia*	Rare, winter
Ring-billed Gull	*Larus delawarensis*	Common, winter
California Gull	*Larus californicus*	Common, winter
Herring Gull	*Larus argentatus*	Rare, winter
Caspian Tern	*Sterna caspia*	Uncommon, transient
Common Tern	*Sterna hirundo*	Uncommon, transient
Forster's Tern	*Sterna forsteri*	Uncommon, winter
Least Tern	*Sterna antillarum*	Rare, transient
Black Tern	*Chlidonias leucopterus*	Uncommon, transient
Pigeons & Doves		
White-winged Dove	*Zenaida asiatica*	Common, summer
Mourning Dove	*Zenaida macroura*	Common, year-round
Inca Dove	*Columbina inca*	Uncommon, year-round
Common Ground Dove	*Columbina passerina*	Uncommon, year-round
Ruddy Ground Dove	*Columbina talpacoti*	Rare, winter
Cuckoos & Roadrunners		
Yellow-billed Cuckoo	*Coccyzus americanus*	Rare, summer
Greater Roadrunner	*Geococcyx californianus*	Rare, summer
Owls		
Barn Owl	*Tyto alba*	Uncommon, year-round
Western Screech Owl	*Otis kennicottii*	Uncommon, year-round
Great Horned Owl	*Bubo virginianus*	Uncommon, year-round
Elf Owl	*Micrathene whitneys*	Uncommon, summer
Burrowing Owl	*Speotyto cunicularia*	Uncommon, year-round
Long-eared Owl	*Asio otus*	Rare, winter
Short-eared Owl	*Asio flammeus*	Rare, winter
Nightjars		
Lesser Nighthawk	*Chordeiles acutipennis*	Common, summer
Common Poorwill	*Phalaenoptilus nuttallii*	Uncommon, summer
Swifts		
Vaux's Swift	*Chaetura pelagica*	Uncommon, transient
White-throated Swift	*Aeronautes saxatalis*	Common, year-round
Hummingbirds		
Black-chinned Hummingbird	*Archilochus alexandri*	Common, summer
Anna's Hummingbird	*Calypte anna*	Common, year-round
Costa's Hummingbird	*Calypte costae*	Common, year-round
Calliope Hummingbird	*Stellula calliope*	Rare, transient
Rufous Hummingbird	*Selasphorus rufus*	Uncommon, transient
Allen's Hummingbird	*Selasphorus sasin*	Rare, transient
Kingfishers		
Belted Kingfisher	*Ceryle alcyon*	Common, winter

Table 3
BLM Priority Animal Species Considered in the Planning Area (cont.)

Common Name	SCIENTIFIC NAME	Status
Nongame Migratory Birds (Migratory Bird Treaty Act) and Raptors (cont.)		
Woodpeckers		
Lewis's Woodpecker	*Melanerpes lewis*	Rare, winter
Gila Woodpecker	*Melanerpes uropygialis*	Common, year-round
Red-naped Sapsucker	*Sphyrapicus nuchalis*	Uncommon, winter
Ladder-backed Woodpecker	*Picoides scalaris*	Common, year-round
Gilded Flicker	*Colaptes chrysoides*	Common, year-round
Northern Flicker	*Colaptes auratus*	Common, winter
Tyrant Flycatchers		
Olive-sided Flycatcher	*Contopus borealis*	Uncommon, transient
Western Wood-Pewee	*Contopus sordidulus*	Uncommon, transient
Willow Flycatcher	*Empidonax traillii*	Uncommon, summer
Hammond's Flycatcher	*Empidonax hammondii*	Uncommon, transient
Dusky Flycatcher	*Empidonax oberholseri*	Rare, transient
Gray Flycatcher	*Empidonax wrightii*	Uncommon, transient
Pacific-slope flycatcher	*Empidonax difficilis*	Uncommon, transient
Cordilleran flycatcher	*Empidonax occidentalis*	Uncommon, transient
Black Phoebe	*Sayornis nigricans*	Common, year-round
Say's Phoebe	*Sayornis saya*	Common, year-round
Vermilion flycatcher	*Pyrocephalus rubinus*	Uncommon, year-round
Ash-throated Flycatcher	*Myiarchus cinerascens*	Common, summer
Brown-crested Flycatcher	*Myiarchus tyrannulus*	Rare, summer
Cassin's Kingbird	*Tyrannus vociferans*	Rare, transient
Western Kingbird	*Tyrannus verticalis*	Common, summer
Larks		
Horned Lark	*Eremophila alpestris*	Common, year-round
Swallows		
Purple Martin	*Progne subis*	Rare, transient
Tree Swallow	*Tachycineta bicolor*	Common, winter
Violet-green Swallow	*Tachycineta thalassina*	Uncommon, transient
North, Rough-winged Swallow	*Stelgidopteryx serripennis*	Common, summer
Bank Swallow	*Riparia riparia*	Uncommon, transient
Cliff Swallow	*Hirundo pyrrhonota*	Common, summer
Barn Swallow	*Hirundo rustica*	Common, transient
Jays & Crows		
Western Scrub Jay	*Aphelocoma californica*	Rare, winter
American Crow	*Corvus brachyrhynchos*	Uncommon, winter
Common Raven	*Corvus corax*	Common, year-round
Verdins & Bushtits		
Verdin	*Auriparus flaviceps*	Common, year-round
Bushtit	*Psaltriparus minimus*	Rare, winter
Nuthatches & Creepers		
Red-breasted Nuthatch	*Sitta canadensis*	Rare, transient
Brown Creeper	*Certhia Americana*	Rare, winter

Table 3
BLM Priority Animal Species Considered in the Planning Area (cont.)

Common Name	SCIENTIFIC NAME	Status
Nongame Migratory Birds (Migratory Bird Treaty Act) and Raptors (cont.)		
Wrens		
Cactus Wren	*Campylorhynchus brunneicapillus*	Common, year-round
Rock wren	*Salpinctes obsoletus*	Common, year-round
Canyon Wren	*Catherpes mexicanus*	Common, year-round
Bewick's Wren	*Thryothorus ludovicianus*	Uncommon, year-round
House Wren	*Troglodytes aedon*	Common, winter
Winter Wren	*Troglodytes troglodytes*	Rare, winter
Marsh Wren	*Cistothorus palustris*	Common, year-round
Kinglets, Gnatcatchers & Allies		
Golden-crowned Kinglet	*Regulus satrapa*	Rare, winter
Ruby-crowned Kinglet	*Reguluscalendula*	Common, winter
Blue-gray Gnatcatcher	*Polioptila caerulea*	Uncommon, year-round
Black-tailed Gnatcatcher	*Polioptila melanura*	Common, year-round
Western Bluebird	*Sialia Mexicana*	Uncommon, winter
Mountain Bluebird	*Sialia currucoides*	Uncommon, winter
Townsend's Solitaire	*Myadestes townsendi*	Rare, winter
Swainson's Thrush	*Catharus ustulatus*	Uncommon, transient
Hermit Thrush	*Catharus guttatus*	Uncommon, winter
American Robin	*Turdus migratorius*	Uncommon, winter
Mockingbirds & Thrashers		
Northern Mockingbird	*Mimus polyglottos*	Common, year-round
Sage Thrasher	*Oreoscoptes montanus*	Uncommon, transient
Curve-billed Thrasher	*Toxostoma curvirostre*	Uncommon, year-round
Crissal Thrasher	*Toxostoma crissale*	Uncommon, year-round
Le Conte's Thrasher	*Toxostoma lecontei*	Uncommon, year-round
Pipits		
American Pipit	*Anthus rubescens*	Common, winter
Waxwings		
Cedar Waxwing	*Bombycilla cedrorum*	Uncommon, winter
Silky-Flycatchers		
Phainopepla	*Phainopepla nitens*	Common, year-round
Shrikes		
Loggerhead Shrike	*Lanius ludovicianus*	Common, year-round
Vireos		
Bell's Vireo	*Vireo bellii*	Uncommon, summer
Gray vireo	*Vireo vicinior*	Rare, transient
Cassin's vireo	*Vireo cassinii*	Uncommon, winter
Plumbeous Vireo	*Vireo plumbeus*	Uncommon, winter
Warbling Vireo	*Vireo gilvus*	Common, transient
Wood-Warblers		
Orange-crowned Warbler	*Vermivora celata*	Common, winter
Nashville Warbler	*Vermivora ruficapilla*	Common, transient
Virginia's Warbler	*Vermivora virginiae*	Rare, transient
Lucy's Warbler	*Vermivora luciae*	Uncommon, summer
Yellow Warbler	*Dendroica petechia*	Uncommon, summer
Yellow-rumped Warbler	*Dendroica coronata*	Common, winter
Black-throated Gray Warbler	*Dendroica nigrescens*	Common, transient
Townsend's Warbler	*Dendroica townsendi*	Common, transient

Table 3
BLM Priority Animal Species Considered in the Planning Area (cont.)

Common Name	SCIENTIFIC NAME	Status
Nongame Migratory Birds (Migratory Bird Treaty Act) and Raptors (cont.)		
Wood-Warblers (cont.)		
Hermit Warbler	*Dendroica occidentalis*	Common, transient
Black-and-white Warbler	*Dendroica varia*	Rare, transient
American Redstart	*Setophaga ruticilla*	Rare, transient
Northern Waterthrush	*Seiurus noveboracensis*	Rare, transient
MacGillivray's Warbler	*Oporornis tolmei*	Common, transient
Common Yellowthroat	*Geothylpis trichas*	Common, year-round
Wilson's Warbler	*Wilsonia pusilla*	Common, transient
Yellow-breasted Chat	*Icteria virens*	Common, summer
Tanagers		
Summer Tanagers	*Piranga rubra*	Uncommon, summer
Western Tanager	*Piranga ludoviciana*	Common, transient
Cardinals, Grosbeakeaks & Allies		
Northern Cardinal	*Cardinalis cardinalis*	Rare, year-round
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	Rare, transient
Black-headed Grosbeak	*Pheucticus melanocephalus*	Common, transient
Blue Grosbeak	*Guiraca caerulea*	Common, summer
Lazuli Bunting	*Passerina amoena*	Common, transient
Indigo Bunting	*Passerina ciris*	Rare, summer
Sparrows		
Green-tailed Towhee	*Pipilo chlorurus*	Uncommon, transient
Spotted Towhee	*Pipilo maculatus*	Uncommon, winter
Canyon Towhee	*Pipilo fuscus*	Common, year-round
Abert's Towhee	*Pipilo aberti*	Common, year-round
Chipping Sparrow	*Spizella passerina*	Uncommon, winter
Brewer's Sparrow	*Spizella breweri*	Uncommon, winter
Black-chinned Sparrow	*Spizella trogularis*	Rare, winter
Vesper Sparrow	*Pooecetes gramineus*	Common, winter
Lark Sparrow	*Chondestes grammacus*	Uncommon, year-round
Black-throated Sparrow	*Amphispiza bilineata*	Common, year-round
Sage Sparrow	*Amphispiza bellii*	Uncommon, winter
Lark Bunting	*Calamospiza melanocorys*	Rare, transient
Savannah Sparrow	*Passerculus sandwichensis*	Common, winter
Grasshopper Sparrow	*Ammodramus savannarum*	Rare, winter
Fox Sparrow	*Passerella iliaca*	Rare, winter
Song Sparrow	*Melospiza melodia*	Common, year-round
Lincoln's Sparrow	*Melospiza lincolnii*	Uncommon, winter
Golden-crowned Sparrow	*Zonotrichia atricapilla*	Rare, winter
White-crowned Sparrow	*Zonotrichia leucophrys*	Common, winter
Dark-eyed Junco	*Junco hyemalis*	Uncommon, winter
Lapland Longspur	*Calcarius lapponicus*	Rare, winter
Chestnut-collared Longspur	*Calcarius ornatus*	Rare, winter

Table 3
BLM Priority Animal Species Considered in the Planning Area (cont.)

Common Name	SCIENTIFIC NAME	Status
Nongame Migratory Birds (Migratory Bird Treaty Act) and Raptors (cont.)		
Blackbirds & Orioles		
Red-winged Blackbird	*Agelaius phoeniceus*	Common, year-round
Western Meadowlark	*Sturnella neglecta*	Common, year-round
Yellow-headed Blackbird	*Xanthocephalus xanthocephalus*	Common, summer
Brewer's Blackbird	*Euphagus cyanocephalus*	Common, winter
Great-tailed Grackle	*Quiscalus mexicanus*	Common, year-round
Brown-headed Cowbird	*Molothrus ater*	Common, year-round
Bronzed Cowbird	*Molothrus aeneus*	Rare, summer
Hooded Oriole	*Molothrus cucullatus*	Uncommon, summer
Bullock's Oriole	*Icterus bullockii*	Uncommon, summer
Scott's Oriole	*Icterus parisorum*	Rare, summer
Finches		
House Finch	*Carpodacus mexicanus*	Common, year-round
Pine Siskin	*Carduelis pinus*	Rare, winter
Lesser Goldfinch	*Carduelis psaltria*	Uncommon, year-round
Lawrence's Goldfinch	*Carduelis lawrencei*	Rare, transient
American Goldfinch	*Carduelis tristis*	Uncommon, winter
Blackbirds & Orioles		
Red-winged Blackbird	*Agelaius phoeniceus*	Common, year-round
Western Meadowlark	*Sturnella neglecta*	Common, year-round
Yellow-headed Blackbird	*Xanthocephalus xanthocephalus*	Common, summer
Brewer's Blackbird	*Euphagus cyanocephalus*	Common, winter
Great-tailed Grackle	*Quiscalus mexicanus*	Common, year-round

Table 4
BLM Sensitive, State Protected, and Priority Plants Considered in the Planning Area

Common Name	Scientific Name	Status
Ajo lily	*Hesperocallis undulate*	ANPL-SR
Algodones Dune Sunflower	*Helianthus niveus ssp. tephrodes*	CA-E, CNPS 1B.2
Alverson's Foxtail Cactus	*Coryphantha alversonii*	Priority
Barrel Cactus	*Ferocactus wislizeni*	ANPL-SR
Beavertail Cactus	*Opuntia basilaris var. basilaris*	ANPL-SR
Beehive Cactus	*Echinomastus johnsonii*	ANPL-SR
Big Galleta	*Hilaria rigida*	Priority
Bigelow's Nolina	*Nolina bigelovii*	ANPL-SR, HR
Blue Paloverde	*Parkinsonia florida*	ANPL-SA
Blue Sand Lily	*Triteliopsis palmeri*	BLM, ANPL-SR,
Buckhorn Cholla	*Opuntia acanthocarpa var. acanthocarpa*	ANPL-SR
Bush Muhly	*Muhlenbergia porteri*	Priority
California Snakewood	*Colubrina californica*	CNPS
Catclaw Acacia	*Acacia greggii*	Priority
Cottonwood	*Populus fremontii*	Priority
Crucifixion Thorn	*Castella emoryi*	ANPL-SR
Desert Agave	*Agave deserti ssp. simplex*	ANPL-SR

Table 4
BLM Sensitive, State Protected, and Priority Plants Considered in the Planning Area (cont.)

Common Name	Scientific Name	Status
Desert Holly	*Atriplex hymenelytra*	ANPL-SR
Desert Willow	*Chilopsis linearis*	ANPL-SA
Devil's Cholla	*Opuntia kunzei*	ANPL-SR
Diamond Cholla	*Opuntia ramosissima*	ANPL-SR
Dudleya	*Dudleya arizonica*	ANPL-SR
Dune Buckwheat	*Eriogonum deserticola*	Priority
Dune Spurge	*Euphorbia platysperma*	Priority
Elephant Tree, Torote	*Bursera microphylla*	ANPL-SR
Fairy Duster	*Calliandra eriophylla*	CNPS
Foothill Paloverde	*Parkinsonia microphylla*	ANPL-SA
Hall's Tetracoccus	*Tetracoccus hallii*	CNPS
Hedgehog Cactus	*Echinocereus engelmanii var. chrysocentrus*	ANPL-SR
Ironwood	*Olneya tesota*	ANPL-SA, HR
Kearney Sumac	*Rhus kearneyi* ssp *kearneyi*	BLM, ANPL- SR
Kofa Mountain Barberry	*Berberis harrisoniana*	BLM, CNPS 1B.2
Long leaf Sandpaper Plant	*Petalonyx linearis*	Priority
Mammillaria Cactus	*Mammillaria tetrancistra*	ANPL-SR
Mesquite	*Prosopis* spp.	ANPL-SA, HR
Night Blooming Cereus	*Peniocereus greggii*	ANPL-SR
Ocotillo	*Fouquieria splendens*	ANPL-SR
Parish Wild Onion	*Allium parishii*	BLM, AZPL-HS
Pencil Cholla	*Opuntia leptocaulis*	ANPL-SR
Queen-of-the-Night	*Peniocereus greggii var. transmontanus*	ANPL-SR
Saguaro Cactus	*Carnegiea gigantea*	ANPL-SR, CNPS
Saguaro Cactus 'Crested' or 'Fan-top'	*Carnegia gigantea*	ANPL-HS
Sand Food	*Pholisma sonorae*	BLM , CNPS 1B.2, ANPL- HS
Scaly Sandplant	*Pholisma arenarium*	BLM, ANPL-HS
Schott Wire Lettuce	*Stephanomeria schottii*	BLM
Scrub Oak	*Quercus turbinella*	Priority
Silver Cholla	*Opuntia echinocarpa*	ANPL-SR
Smoke Tree	*Psorothamnus spinosus*	ANPL-SA
Teddy-bear Cholla	*Opuntia bigelovii*	ANPL-SR
Thurber's Pilostyles	*Pilostyles thurberi*	CNPS
Wiggins Croton	*Croton wigginsii*	CA-R
Goodding's Willow	*Salix gooddingii*	Priority

ANPL Arizona Native Plant Law (ANPL) Categories of Protection
ANPL-HS Highly Safeguarded Protected Native Plants includes those species of native plants and parts of plants, including the seeds and fruit, whose prospects for survival in Arizona are in jeopardy or which are in danger of extinction.
ANPL-SR Salvage Restricted Protected Native Plants includes those species of native plants that are not included in the highly safeguarded category but are subject to damage by theft or vandalism. In addition to the plants listed under Agavaceae, Cactaceae, Liliaceae, and Orchidaceae, all other species in these families are salvage restricted protected native plants
ANPL-SA Salvage Assessed Protected Native Plants includes those species of native plants that are not included in either the highly safeguarded or salvage restricted category but have a sufficient value of salvaged to support the cost of salvage
ANPL-HR Harvest Restricted Protected Native Plants includes those species of native plants that are not included in the highly safeguarded category but are subject to excessive harvesting or overcutting because of their intrinsic value.
BLM Arizona BLM Sensitive Species
CA-R Categorized by the State of California as "rare"; California Department of Fish and Game, 2000
CA-E Categorized by the State of California as "endangered"; California Department of Fish and Game, 2000
CNPS Listed by California Native Plants Society
1B Rare, threatened, or endangered in California and elsewhere
0.2 Fairly endangered in California
Priority Priority species in planning area

Table 5
Invasive or Non-native Plant Species

Common Name	Scientific Name	Habit	Designation	Presence in YFO
Bermuda Grass	*Cynodon dactylon*	Terrestrial		Common
Buffel Grass	*Pennisetum ciliare*	Terrestrial	AZ-regulated	Common on roadsides
Camelthorn	*Alhagi pseudalhagi*	Terrestrial		Small infestations
Dodder	*Cuscuta spp.*	Terrestrial	AZ-regulated	Uncommon
Eurasian Waternilfoil	*Myriophyllum spicatum*	Aquatic		Common
Fountain grass	*Pennisetum setaceum*	Terrestrial		Small infestations
Garden Rocket	*Eruca vesicaria*	Terrestrial		Small infestations
Giant Reed	*Arundo donax*	Terrestrial/ Riparian		Uncommon
Giant Salvinia	*Salvinia molesta*	Aquatic	Federally listed noxious, AZ-prohibited	Widespread
Hydrilla	*Hydrilla verticaillata*	Aquatic	AZ-prohibited	Not known to occur
Iceplant	*Mesembryanthemum* spp.	Terrestrial		Small infestations
Lead Plant	*Leucaena* spp.	Terrestrial		Small infestations
Lehmann's Lovegrass	*Eragrostis lehmanniana*	Terrestrial		Not known to occur
Malta Starthistle	*Centaurea melitensis*	Terrestrial		Not known to occur
Mediterranean Grass	*Scismus barbatus, Scismus arabicus*	Terrestrial		Widespread
Pampas Grass	*Cortaderia selloana*	Terrestrial		Not known to occur
Parrot feather	*Myriophyllum aquaticum*	Aquatic		Small infestations
Puncturevine	*Tribulus terrestris*	Terrestrial	AZ-regulated	Uncommon
Ravenna Grass	*Erianthus ravennae*	Terrestrial		Small infestations
Red Brome	*Bromus rubens*	Terrestrial		Common
Russian Thistle	*Salsola spp.*	Terrestrial		Uncommon
Sahara Mustard	*Brassica tornefortii*	Terrestrial		Widespread
Salt Cedar	*Tamarix* spp.	Terrestrial/ Riparian		Widespread
Water Hyacinth	*Eichhornia crassipes*	Aquatic	AZ-restricted	Not known to occur

AZ - Arizona

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PROPOSED CONSERVATION MEASURES

1.0 CONSERVATION MEASURES FOR FIRE MANAGEMENT ACTIVITIES

1.1 WILDLAND FIRE SUPPRESSION (FS)

The following Conservation Measures will be implemented during fire suppression operations unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Each Conservation Measure has been given an alphanumerical designation for organizational purposes (*e.g.*, FS-1). Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS.

FS-1 Protect known locations of habitat occupied by federally listed species. Minimum Impact Suppression Tactics (M.I.S.T.) will be followed in all areas with known federally protected species or habitat [Appendix U, *Interagency Standards for Fire and Aviation Operations 2003*, or updates].

FS-2 Resource Advisors will be designated to coordinate natural resource concerns, including federally protected species. They will also serve as a field contact representative (FCR) responsible for coordination with the USFWS. Duties will include identifying protective measures endorsed by the Field Office Manager, and delivering these measures to the Incident Commander; surveying prospective campsites, aircraft landing and fueling sites; and performing other duties necessary to ensure adverse effects to federally protected species and their habitats are minimized. On-the-ground monitors will be designated and used when fire suppression activities occur within identified occupied or suitable habitat for federally protected species.

FS-3 All personnel on the fire (firefighters and support personnel) will be briefed and educated by Resource Advisors or designated supervisors about listed species and the importance of minimizing impacts to individuals and their habitats. All personnel will be informed of the conservation measures designed to minimize or eliminate take of the species present. This information is best identified in the incident objectives.

FS-4 Permanent road construction will not be permitted during fire suppression activities in habitat occupied by federally protected species. Construction of temporary roads is approved only if necessary for safety or the protection of property or resources, including federally protected species habitat. Temporary road construction should be coordinated with the USFWS, through the Resource Advisor.

FS-5 Crew camps, equipment staging areas, and aircraft landing and fueling areas should be located outside of listed species habitats, and preferably in locations that are disturbed. If camps must be located in listed species habitat, the Resource Advisor will be consulted to ensure habitat

damage and other effects to listed species are minimized and documented. The Resource Advisor should also consider the potential for indirect effects to listed species or their habitat from the siting of camps and staging areas (*e.g.*, if an area is within the water flow pattern, there may be indirect effects to aquatic habitat or species located off-site).

FS-6 All fire management protocols to protect federally protected species will be coordinated with local fire suppression agencies that conduct fire suppression on BLM-administered lands to ensure that the agency knows how to minimize impacts to federally protected species in the area.

FS-7 The effectiveness of fire suppression activities and Conservation Measures for federally protected species should be evaluated after a fire, when practical, and the results shared with the USFWS and AGFD. Revise future fire suppression plans and tactical applications as needed and as practical.

1.2 FUELS TREATMENTS (PRESCRIBED BURNING AND OTHER FUELS MANAGEMENT) (FT)

The following Conservation Measures **are mandatory** when implementing wildland fire use, prescribed fires, and the proposed vegetation treatments (mechanical, chemical, biological):

FT-1 Biologists will be involved in the development of prescribed burn plans and vegetation treatment plans to minimize effects to federally protected species and their habitats within, adjacent to, and downstream from proposed project sites. Biologists will consider the protection of seasonal and spatial needs of federally protected species (*e.g.*, avoiding or protecting important use areas or structures and maintaining adequate patches of key habitat components) during project planning and implementation.

FT-2 M.I.S.T. will be followed in all areas with known federally protected species or habitats.

FT-3 Pre-project surveys and clearances (biological evaluations/assessments) for federally protected species will be required for each project site before implementation. All applicable Conservation Measures will be applied to areas with unsurveyed suitable habitat for federally protected species, until a survey has been conducted by qualified personnel to clear the area for the treatment activity.

FT-4 Use of motorized vehicles during prescribed burns or other fuels treatment activities in suitable or occupied habitat will be restricted, to the extent feasible, to existing roads, trails, washes, and temporary fuelbreaks or site-access routes. If off-road travel is deemed necessary, any crosscountry travel paths will be surveyed prior to use and will be closed and rehabilitated after the prescribed burn or fuels treatment project is completed.

FT-5 As part of the mandatory fire briefing held prior to prescribed burning, all personnel (firefighters and support personnel) will be briefed and educated by Resource Advisors or designated supervisors about listed species and the importance of minimizing impacts to individuals and their habitats. All personnel will be informed of the Conservation Measures designed to minimize or eliminate take of the species present.

1.3 REHABILITATION AND RESTORATION (RR)

RR-1 When rehabilitating important areas for federally listed species that have been damaged by fire or other fuels treatments, the biologist will give careful consideration to minimizing short-term and long-term impacts. Someone who is familiar with fire impacts and the needs of the affected species will contribute to rehabilitation plan development. Appropriate timing of rehabilitation and spatial needs of federally listed species will be addressed in rehabilitation plans.

RR-2 Seed from regionally native or sterile non-native species of grasses and herbaceous vegetation will be used in areas where reseeding is necessary following ground disturbance to stabilize soils and prevent erosion by both wind and water.

RR-3 Sediment traps or other erosion control methods will be used to reduce or eliminate influx of ash and sediment into aquatic systems.

RR-4 Use of motorized vehicles during rehabilitation or restoration activities in suitable or occupied habitat will be restricted, to the extent feasible, to existing roads, trails, or washes, and to temporary access roads or fuelbreaks created to enable the fire suppression, prescribed burn, or fuels treatment activities to occur. If off-road travel is deemed necessary, any cross-country travel paths will be surveyed prior to use and will be closed and rehabilitated after rehabilitation or restoration activities are completed.

RR-5 All temporary roads, vehicle tracks, skid trails, and OHV trails resulting from fire suppression and the proposed fire management activities will be rehabilitated (water bars, etc.), and will be closed or made impassible for future use.

RR-6 Burned area emergency rehabilitation (BAER) activities and long-term restoration activities should be monitored, and the results provided to the USFWS and AGFD. Section 7 consultation for BAER activities will be conducted independently, if necessary.

RR-7 (Recommended) Develop public education plans that discourage or restrict fires and fire-prone recreation uses during high fire-risk periods. Develop brochures, signs, and other interpretive materials to educate recreationists about the ecological role of fires, and the potential dangers of accidental fires.

2.0 CONSERVATION MEASURES FOR FIRE MANAGEMENT ACTIVITIES IN RIPARIAN AND AQUATIC HABITATS (RA)

2.1 WILDLAND FIRE SUPPRESSION AND REHABILITATION

The following Conservation Measures will be implemented during fire suppression operations in riparian, wetland, or aquatic habitats, unless firefighter or public safety, or the protection of

property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS. The BLM's 1987 policy statement on riparian area management defines a riparian area as an area of land directly influenced by permanent water. It has visible vegetation or physical characteristics reflective of permanent water influence. Lakeshores and streambanks are typical riparian areas.

Excluded are such sites as ephemeral streams or washes that do not exhibit the presence of vegetation dependent upon free water in the soil.

RA-1 During wildfire suppression, apply M.I.S.T. within riparian areas. Fire suppression actions in riparian areas should be prioritized to minimize damage to stands of native vegetation from wildfire or suppression operations. To the extent possible, retain large, downed woody materials and snags that are not a hazard to firefighters.

RA-2 Fire suppression and rehabilitation in riparian corridors will be coordinated with the Resource Advisor or qualified biologist approved by BLM.

RA-3 Site-specific implementation plans that include project areas with federally protected aquatic or riparian-obligate species will specify fire management objectives and wildland fire suppression guidance, taking into account the special concerns related to these species.

RA-4 In riparian areas, use natural barriers or openings in riparian vegetation where possible as the easiest, safest method to manage a riparian wildfire. Where possible and practical, use wet firebreaks in sandy overflow channels rather than constructing firelines by hand or with heavy equipment.

RA-5 Construction or development of a crossing for motorized vehicles across a perennial stream will not be permitted, unless an established road already exists or where dry, intermittent sections occur.

RA-6 Avoid the use of fire retardants or chemical foams in riparian habitats or within 300 feet of aquatic habitats, particularly sites occupied by federally protected species. Apply operational guidelines as stated in the *Interagency Standards for Fire and Fire Aviation Operations 2003 (or updates),* Environmental Guidelines for Delivery of Retardant or Foam Near Waterways, Chapter 8 (pp. 8-13 through 8-15).

RA-7 Priority for placement of fire camps, fire staging areas, and aircraft landing or refueling sites will be outside riparian areas or river/stream corridors.

RA-8 When using water from sources supporting federally protected species, care must be taken to ensure adverse impacts to these species are minimized or prevented. Unused water from fire abatement activities will not be dumped in sites occupied by federally protected aquatic species to avoid introducing non-native species, diseases, or parasites.

RA-9 If water is drafted from a stock tank or other body of water for fire suppression, it will not be refilled with water from another tank, lakes, or other water sources that may support non-native fishes, bullfrogs, crayfish, or salamanders.

RA-10 Use of containment systems for portable pumps to avoid fuel spills in riparian or aquatic systems will be required.

RA-11 (Recommended) Develop and implement restoration plans for affected riparian or aquatic areas, including long-term monitoring, to document changes in conditions in the riparian zone and watershed that maintain flood regimes and reduce fire susceptibility. Monitor stream water quality and riparian ecosystem health to determine effects of wildfire and fire management activities. Coordinate efforts and results with the USFWS and AGFD.

2.2 FUELS TREATMENTS (PRESCRIBED FIRE; MECHANICAL, CHEMICAL, AND BIOLOGICAL TREATMENTS)

The following Conservation Measures **are mandatory** when implementing wildland fires use, prescribed fires, and the proposed vegetation treatments (mechanical, chemical, biological) within riparian, wetland, or aquatic habitats.

RA-12 All Conservation Measures for wildland fire suppression (**RA-1 to RA-11, Section 2.1**) also apply to fuels treatment activities (prescribed fire; mechanical, chemical, and biological treatments) in riparian, wetland, and aquatic habitats.

RA-13 Fire management treatments within or adjacent to riparian and aquatic habitats will be designed to provide long-term benefits to aquatic and riparian resources by reducing threats associated with dewatering and surface disturbance, or by improving the condition of the watershed and enhancing watershed function.

RA-14 For priority fire/fuels management areas (*e.g.*, WUIs) with federally protected species or designated critical habitat downstream, BLM biologists and other resource specialists, as appropriate, in coordination with USFWS and AGFD, will determine:

A) The number of acres and the number of projects or phases of projects to occur within one watershed per year.

B) An appropriately-sized buffer adjacent to perennial streams in order to minimize soil and ash from entering the stream.

C) Where livestock grazing occurs in areas that have been burned, specialists will determine when grazing can be resumed. Such deferments from grazing will only

occur when necessary to protect streams from increased ash or sediment flow into streams. [1]

If agreement cannot be reached or treatment will not meet fuel reduction objectives, BLM will reinitiate consultation. BLM authority to make these types of changes is in the regulations at 43 CFR 4110.3-3(b).

3.0 SPECIES SPECIFIC CONSERVATION MEASURES

In addition to the general Conservation Measures listed in **Sections 1.0** and **2.0**, the following species specific Conservation Measures will be applied during wildfire suppression to the extent possible, and will be required during fuels treatment activities (wildland fire use, prescribed fire, vegetation treatments).

Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS. For all activities, if Conservation Measures for a species cannot be implemented, BLM would be required to initiate Section 7 consultation with USFWS for that particular activity.

3.1 AMPHIBIANS [CHIRICAHUA LEOPARD FROG (FT); RELICT LEOPARD FROG (FC)]

AM-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (**Section 2.0**).

AM-2 For fire management sites with habitat for the Chiricahua leopard frog, unsurveyed sites will be considered occupied unless surveyed prior to project implementation.

AM-3 Install sediment traps, as determined by a Resource Advisor or qualified biologist approved by BLM, upstream of tanks and ponds occupied by Chiricahua leopard frogs in order

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[1] The Interagency Burned Area Emergency Stabilization and Rehabilitation Handbook, Exhibit 4-2 ,BLM supplemental guidance, page 5 of 9 (http://fire.r9.fws.gov/ifcc/ESR/handbook/4PolicyGuidance.htm) establishes the following policy for livestock exclusion following burns:

Exclusion of livestock is critical for the recovery of burned vegetation or establishment and maintenance of new seedings and use of these areas should not be permitted until the vegetation recovers or is established. Both re-vegetated and, burned but not re-vegetated areas, will be closed to livestock grazing for at least two growing seasons following the season in which the wildfire occurred to promote recovery of burned perennial plants and/or facilitate the establishment of seeded species. Livestock permittees must be informed of the closure early during the plan preparation process, and livestock closures will be made a condition or term on the grazing license or permit through the issuance of grazing decision (see 43 CFR 4160). Livestock closures for less than two growing seasons may be justified on a case-by-case basis based on sound resource data and experience. Livestock management following seedling establishment and/ or burned area recovery should maintain both non-native and/or native species to meet land use (including Standards for Rangeland Health and Guidelines for Grazing Management) or activity plan objectives.

to minimize the amount of ash and sediment entering the water. Consultation with a qualified biologist during the planning phase will aid in determining sediment trap installation requirements (see Conservation Measures FT-1 and FT-3).

AM-4 All personnel performing fire management activities at any creek crossing will be informed of the potential presence of Chiricahua leopard frogs, their status, and the need to perform their duties to avoid impacts to the frog and its habitat.

AM-5 Except as needed in emergency situations to abate immediate fire threat or loss of life or property, no water will be drafted for fire suppression from bodies of water known to be occupied by the Chiricahua leopard frog.

3.2 BIRDS

3.2.1 CACTUS FERRUGINOUS PYGMY-OWL (PROPOSED CH, WILDLIFE OF CONCERN IN ARIZONA)

FP-1 Treatment of riparian habitat, Sonoran desert/desertscrub, or mesquite-invaded grasslands under 4,000 feet in elevation that may support nesting cactus ferruginous pygmy-owls will only occur during the non-nesting season of August 1 to January 31, unless pre-project surveys indicate the area does not support pygmy-owls or mitigation plans approved by the USFWS have alleviated negative consequences.

FP-2 Develop mitigation plans in coordination with the USFWS for fuels treatment projects (prescribed fire; vegetation treatments) that may adversely affect cactus ferruginous pygmy-owls or their habitat. Mitigation plans for prescribed fire shall limit to the extent practicable the possibility that fire would spread to riparian habitats. Mitigation plans will be approved by the USFWS.

FP-3 (Recommended) To the extent possible, maintain habitat features necessary to support breeding populations of the pygmy-owl within their historic range and review ongoing fire management activities for effects on essential habitat features needed by cactus ferruginous pygmy-owls. Modify activities, where necessary, to sustain the overall suitability of the habitat for the owls. Priority will be given to activities in or near occupied or recently (w/in the last 10 years) occupied habitat.

3.2.2 CALIFORNIA BROWN PELICAN (FE)

BP-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (Section 2.0).

3.2.3 CALIFORNIA CONDOR (FE; 10(J) SPECIES)

The following Conservation Measures apply to BLM-administered lands within the designated 10(j) area for California condors:

CC-1 All helicopter dip tanks will be covered when not in use.

CC-2 Any presence of condors in the project area will be recorded and reported immediately to the Resource Advisor.

CC-3 If condors arrive at any area of human activity associated with fire suppression or fuels treatment projects (wildland fire use, prescribed fire, vegetation treatments), the birds will be avoided. The assigned Resource Advisor or a qualified wildlife biologist approved by BLM will be notified, and only permitted personnel will haze the birds from the area.

CC-4 All camp areas will be kept free from trash.

CC-5 Aircraft use along the Vermilion Cliffs or sites where condors are attempting to breed or roost will be minimized,

CC-6 The Resource Advisor will contact the Peregrine Fund daily (at 520-606-5155 or 520-380-4667) to check on locations of condors during fire suppression or fuels treatment activities involving aviation. This information will be communicated to the Incident Commander and aviation personnel.

CC-7 If any fire retardant chemicals must be used in areas where condors are in the vicinity (see **CC-6**), the application area will be surveyed and any contaminated carcasses will be removed as soon as practical to prevent them from becoming condor food sources.

CC-8 Aircraft will remain 400 meters from condors in the air or on the ground unless safety concerns override this restriction. If airborne condors approach aircraft, aircraft will give up airspace to the extent possible, as long as this action does not jeopardize safety.

CC-9 Smoke from wildland fire use and prescribed fire projects will be managed to minimize negative effects to condor breeding. A potential wildland fire use event will not be initiated, or an existing event will be modified or terminated, to prevent or stop significant amounts of smoke, or smoke that will remain in place for an extended period of time, or chronic smoke events, from occurring in area(s) where condors are attempting to breed.

CC-10 BLM will adhere to the air quality standards set by the ADEQ.

3.2.4 NORTHERN APLOMADO FALCON (FE)

AF-1 If aplomado falcons are reestablished or are discovered on public lands, and they nest in a fuels management project area, BLM will implement temporary closures to human access and project implementation (wildland fire use, prescribed burning, vegetation treatments) within ½ mile of nest sites during the breeding season. Wildland fire use and prescribed burning will be conducted in a manner to ensure nest sites are more than ½ mile from downwind smoke effects.

3.2.5 SOUTHWESTERN WILLOW FLYCATCHER (FE)

WF-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (**Section 2.0**).

WF-2 Except where fires are active in occupied habitat, minimize unnecessary low-level helicopter flights during the breeding season (April 1 to September 30). Approach bucket dip sites at a 90-degree direction to rivers to minimize flight time over the river corridor and occupied riparian habitats. Locate landing sites for helicopters at least ¼ mile from occupied sites to avoid impacts to willow flycatchers and their habitat.

WF-3 Minimize use of chainsaws or bulldozers to construct firelines through occupied or suitable habitat except where necessary to reduce the overall acreage of occupied habitat or other important habitat areas that would otherwise be burned.

WF-4 Implement activities to reduce hazardous fuels or improve riparian habitats (prescribed burning or vegetation treatments) within occupied or unsurveyed suitable habitat for southwestern willow flycatchers only during the non-breeding season (October 1 to March 31).

WF-5 Avoid developing access roads that would result in fragmentation or a reduction in habitat quality. Close and rehabilitate all roads that were necessary for project implementation (see **RR-5**).

WF-6 Prescribed burning will only be allowed within ½ mile of occupied or unsurveyed suitable habitat when weather conditions allow smoke to disperse away from the habitat when birds may be present (breeding season of April 1 to September 30).

WF-7 Vegetation treatment projects adjacent to occupied or unsurveyed suitable habitat will only be conducted when willow flycatchers are not present (October 1 to March 31).

3.2.6 YUMA CLAPPER RAIL (FE)

CR-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (**Section 2.0**).

CR-2 Any prescribed fire or vegetation treatment project in occupied or suitable marsh habitat would only occur between September 1 and March 15 to avoid the Yuma clapper rail breeding and molting seasons.

CR-3 Mechanical removal of overstory habitat (*Tamarisk*) could occur as early as August 15, after the breeding season for Yuma clapper rails.

CR-4 Herbicide application would not occur in Yuma clapper rail habitat and drift-inhibiting agents would be used to assure that the herbicide does not enter adjacent marsh areas.

3.2.7 BALD EAGLE (WILDLIFE OF CONCERN IN ARIZONA)

BE-1 No human activity within ½ mile of known bald eagle nest sites between December 1 and June 30.

BE-2 No tree cutting within ¼ mile of known nest trees.

BE-3 No human activity within ¼ mile of known bald eagle winter roost areas between October 15 and April 15.

BE-4 No tree cutting within the area immediately around winter roost sites as determined by BLM biologists.

BE-5 No helicopter or aircraft activity or aerial retardant application within ½ mile of bald eagle nest sites between December 1 and June 30 or winter roost sites between October 15 and April 15.

BE-6 Conduct prescribed burn activities outside of nesting season in a manner to ensure nest and winter roost sites are more than ½ mile from downwind smoke effects.

BE-7 Provide reasonable protective measures so fire prescription or fuels treatment will not consume dominant, large trees as identified by the Resource Advisor or qualified biologist approved by BLM within ½ mile of known nests and roosts of bald eagles pre-treatment efforts should provide reasonable protection of identified nesting and roosting trees (see Conservation Measure FT-4).

3.2.8 MEXICAN SPOTTED OWL (FT, CH)

SO-1 BLM wildlife biologists will be involved early in the decision-making process for fuels management treatments (appropriately managed wildfires, prescribed fires, vegetation treatments) that are planned within suitable habitat or designated critical habitat for Mexican spotted owls (MSO).

SO-2 Suitable habitat and designated critical habitat for MSO will be surveyed prior to implementing prescribed fire or vegetation treatment activities on BLM-administered lands to determine MSO presence and breeding status. These fire management activities will only be implemented within suitable or critical habitat if birds are not present. If a spotted owl is discovered during these surveys, BLM will notify the USFWS to reinitiate consultation and will determine any additional Conservation Measures necessary to minimize or eliminate impacts to the owl.

SO-3 If a MSO is discovered during fire suppression or fuels treatment activities (wildland fire use, prescribed fire, vegetation treatments), the Resource Advisor or a qualified wildlife biologist will document the find and assess potential harm to the owl and advise the Incident Commander or project crew boss of methods to prevent harm. The information will include for each owl the location, date, and time of observation and the general condition of the owl. The Resource Advisor or biologist will contact the appropriate USFWS office, and BLM will reinitiate consultation for the fire suppression or project activities.

SO-4 Within MSO critical habitat designated on BLM-administered lands:

A) To minimize negative effects on the primary constituent elements of critical habitat, appropriately managed wildlfires, and prescribed fires will be managed primarily as low intensity fires, with only scattered high-intensity patches. The BLM.s objective

will be to limit mortality of trees greater than 18 inches dbh to less than five percent, occasionally up to 10 percent, within critical habitat.

B) If fireline construction is necessary during fire suppression, appropriately managed wildfires, or prescribed fires, BLM will minimize the cutting of trees and snags larger than 18 inches dbh, and no trees or snags larger than 24 inches dbh will be cut unless absolutely necessary for safety reasons.

C) For mechanical vegetation treatments within critical habitat, BLM will minimize the cutting of trees and snags larger than 18 inches dbh, and no trees or snags larger than 24 inches dbh will be cut unless absolutely necessary for safety reasons.

D) Critical habitat disturbed during fire suppression or fuels treatment activities, such as fire lines, crew camps, and staging areas, will be rehabilitated to prevent their use by vehicles or hikers. Fire line rehabilitation will include pulling soil, duff, litter, woody debris, and rocks back onto the line to bring it up to grade and to make it blend in with the surrounding area. Such rehabilitation will be inspected one year after the event to ensure effectiveness.

SO-5 The following measures will be followed in suitable habitat (occupied or unoccupied) whenever consistent with objectives to reduce hazardous fuels:

A) Manage mixed-conifer and pine-oak forest types to provide continuous replacement nest habitat over space and time (Table III.B.1 of the Recovery Plan for Mexican Spotted Owl).

B) Incorporate natural variation, such as irregular tree spacing and various stand/patch sizes, into management prescriptions and attempt to mimic natural disturbance patterns.

C) Maintain all species of native vegetation in the landscape, including early seral species. To allow for variation in existing stand structures and provide species diversity, both uneven-aged and even-aged systems may be used as appropriate.

D) Allow natural canopy gap processes to occur, thus producing horizontal variation in stand structure.

E) Within pine-oak types, fuels treatment activities should emphasize retaining existing large oaks and promoting the growth of additional large oaks.

F) Retain all trees >24 inches dbh.

G) Retain hardwoods, large down logs, large trees, and snags. Emphasize a mix of size and age classes of trees. The mix should include large mature trees, vertical diversity, and other structural and floristic characteristics that typify natural forest conditions.

SO-6 The effects of fire suppression and fuels treatment activities on MSO and their habitat, and the effectiveness of these Conservation Measures, will be assessed after each fire event or fuels

treatment project by the Resource Advisor or local biologist to allow evaluation of these guidelines and to allow the USFWS to track the species environmental baseline. Prescriptions for appropriately managed wildfires, prescribed fires, and vegetation treatments will be adjusted, if necessary.

3.2.9 YELLOW-BILLED CUCKOO (FC)

YC-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (**Section 2.0**).

3.3 FISH

The following Conservation Measure will be implemented for all federally protected fish species that may be affected by the proposed action during fire suppression to the extent possible, and are mandatory for wildland fire use, prescribed fire, and vegetation treatment activities:

FI-1 BLM will cooperate with other agencies to develop emergency protocols to decrease the impacts of fire suppression and fuels treatment activities on federally listed fish species. Emergency protocols will include appropriate agency contacts, a list of facilities that can hold fish, sources of equipment needed (e.g., sampling gear, trucks) and how to address human health and safety issues.

In addition to implementing **FI-1**, the following species-specific Conservation Measures will also apply:

3.3.1 BONYTAIL CHUB (FE, CH)

BC-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (**Section 2.0**) to eliminate adverse effects from fire management activities to available spawning habitat along shorelines *(i.e.*, occupied reaches and critical habitat).

3.3.2 DESERT PUPFISH (FE, CH)

DP-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (**Section 2.0**) for occupied reaches and critical habitat.

DP-2 Conduct prescribed burns such that no more than one-half of the watershed of each desert pupfish site is burned in a two-year period (excluding buffers to the streams and/or spring habitats) and repeat treatments at greater than two-year intervals.

DP-3 Monitor, where practical, for fish kill immediately following the first runoff event after prescribed fires in watersheds containing desert pupfish.

DP-4 When considering which creek crossings to use for fire management activities, avoid crossings that are known to be occupied by desert pupfish.

3.3.3 GILA TOPMINNOW (FE)

GT-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (**Section 2.0**).

GT-2 Conduct prescribed burns such that no more than one-half of the watershed of each Gila topminnow natural or reintroduction site is burned in a two-year period (excluding buffers to the streams and/or spring habitats) and repeat treatments at greater than two-year intervals.

GT-3 Monitor for fish kill, where practical, immediately following the first runoff event after prescribed fires in the watersheds containing Gila topminnows.

GT-4 When considering which creek crossings to use for fire management activities, avoid crossings that are known to be occupied by Gila topminnow, when possible.

GT-5 Develop mitigation plans in coordination with the USFWS for each fuels management project (prescribed fire; vegetation treatments) that may adversely affect the Gila topminnow. Mitigation plans for prescribed fire will limit to the extent practicable the possibility that fire would spread to riparian habitats. Mitigation plans will be approved by the USFWS.

GT-6 (Recommended) Cooperate with the USFWS and AGFD to identify site-specific measures, such as prescribed fires in grassland vegetation types to improve watershed conditions (*e.g.*, in the Cienega Creek watershed), to protect populations of Gila topminnow from other resource program impacts.

3.3.4 RAZORBACK SUCKER (FE, CH)

RS-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (Section 2.0) to minimize adverse effects from fire management activities to available spawning habitat along shorelines (*i.e.*, occupied sites and critical habitat).

RS-2 Project boundaries for fire management activities will avoid or protect sensitive habitats of the razorback sucker.

3.3.5 VIRGIN RIVER CHUB (FE, CH)

VC-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (**Section 2.0**) for the stretch of the Virgin River within Arizona.

3.3.6 WOUNDFIN (FE, CH; FUTURE 10(J) POPULATIONS)

WM-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (**Section 2.0**) for the stretch of the Virgin River within Arizona.

3.3.7 LITTLE COLORADO SPINEDACE (FT, CH)

LS-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (**Section 2.0**) to minimize adverse effects from fire management activities on BLM lands to occupied reaches and critical habitat on adjacent lands.

3.3.8 LOACH MINNOW (FT, CH); SPIKEDACE (FT, CH)

LM-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (**Section 2.0**) for occupied reaches and critical habitat.

LM-2 All reasonable efforts shall be made to minimize disturbance within the wetted areas of Aravaipa Creek or tributary channels.

LM-3 No heavy equipment will be used off-road during wildfire suppression and fuels treatment projects within the wetted areas of Aravaipa Creek.

LM-4 All reasonable efforts will be made to ensure that no pollutants, retardants, or chemicals associated with wildfire suppression and fuels treatment projects or activities enter surface waters of reaches occupied by these two fish species.

LM-5 Develop mitigation plans in coordination with the USFWS for each fuels management project (prescribed fire; vegetation treatments) that may adversely affect the loach minnow and spikedace. Mitigation plans for prescribed fire will limit to the extent practicable the possibility that fire would spread to riparian habitats. Mitigation plans will be approved by the USFWS.

LM-6 (Recommended) Cooperate with the USFWS and AGFD to identify site-specific measures, such as prescribed fires in grassland vegetation types to improve watershed conditions (*e.g.*, in the Aravaipa Creek watershed), to protect populations of loach minnow and spikedace from other resource program impacts.

3.3.9 GILA CHUB (PE, PROPOSED CH)

GC-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (**Section 2.0**) for occupied reaches and proposed critical habitat.

GC-2 When considering which creek crossings to use for fire management activities, avoid crossings that are known to be occupied by Gila chub, when possible.

GC-3 (Recommended) Cooperate with the USFWS and AGFD to identify site-specific measures, such as prescribed fires in grassland vegetation types to improve watershed conditions (*e.g.*, in the Cienega Creek watershed), to protect populations of Gila chub from other resource program impacts.

3.4 FLOWERING PLANTS

The following Conservation Measures for known locations and unsurveyed habitat of all federally protected plant species within the planning area will be implemented during fire suppression to the extent possible, and are mandatory for wildland fire use, prescribed fire and vegetation treatment activities:

PL-1 Known locations and potential habitat for plant populations will be mapped to facilitate planning for wildland fire use, prescribed fires, and vegetation treatments, and to ensure protection of these populations during fire suppression.

PL-2 BLM will coordinate with FWS to delineate buffer areas around plant populations prior to prescribed fire and vegetation treatment activities. BLM will coordinate with USFWS during any emergency response and wildland fire use activities to ensure protection of plant populations from fire and fire suppression activities.

PL-3 During fire suppression, wildland fire use, and prescribed fire in habitat occupied by federally protected plant species, no staging of equipment or personnel will be permitted within 100 meters of identified individuals or populations, nor will OHVs be allowed within the 100-meter buffer area, unless necessary for firefighter or public safety or the protection of property, improvements, or other resources (see **FS-7**). One of the primary threats to many of these plant species is trampling/crushing from personnel and vehicles.

PL-4 No prescribed burning will be implemented within 100 meters of identified locations or unsurveyed suitable habitat for federally protected and sensitive plant populations unless specifically designed to maintain or improve the existing population. There are no additional species-specific conservation measures for the following federally protected plant species: **Arizona Cliffrose** (*Purshia subintegra*), **Brady pincushion cactus** (*Pediocactus bradyi*), **Holmgren Milk Vetch** (*Astragalus homgreniorum*), **Nichol Turk.s Head Cactus** (*Echinocactus horizonthalonius* var. *nicholii*), **Peebles Navajo Cactus** (*Pediocactus peeblesianus* var. *peeblesianus*), **Pima Pineapple Cactus** (*Coryphantha scheeri* var. *robustispina*), **Jones Cycladenia** (*Cycladenia humilis* var. *jonesii*), **Siler Pincushion Cactus** (*Pediocactus sileri*), **Acuña Cactus** (*Echinomastus erectocentrus* var. *acunensis*), **Fickeisen Plains Cactus** (*Pediocactus peeblesianus* var. *fickeiseniae*).

3.4.1 HUACHUCA WATER UMBEL (*LILAEOPSIS SCHAFFNERIANA* VAR. *RECURVA*) [FE, CH]

In addition to implementing **PL-1** through **PL-4**, the following species-specific Conservation Measures will also apply:

WU-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (**Section 2.0**).

WU-2 (Recommended) The BLM should fund additional surveys for the water umbel on BLM lands, and support research on the ecology of the species. Surveys may support the use of prescribed fire in areas not occupied by the Huachuca water umbel.

3.4.2 KEARNEY.S BLUE STAR (*AMSONIA KEARNEYANA*) [FE]

In addition to implementing **PL-1** through **PL-4**, the following species-specific Conservation Measures will also apply:

KB-1 No mechanical or chemical vegetation manipulation will be authorized by BLM, and no planting or seeding of nonnative plants will occur in the Brown Canyon watershed within the Baboquivari allotment.

KB-2 Planning and management for wildfire suppression in the watershed of Brown Canyon will be coordinated with the USFWS.

3.5 MAMMALS

3.5.1 BLACK-FOOTED FERRET (FE, 10(J) SPECIES)

If black-footed ferrets are discovered or re-established on public lands, then the following Conservation Measures will apply:

BF-1 No heavy equipment operation off of existing roads within ¼ mile of prairie dog towns having documented occurrence of black-footed ferrets.

BF-2 No aerial retardant application within 300 feet of prairie dog towns having documented occurrence of black-footed ferrets.

BF-3 No surface disturbance of prairie dog towns having documented occurrence of black-footed ferrets.

BF-4 In Apache and Navajo counties, prairie dog complexes suitable for black-footed ferrets within ¼ mile of proposed project sites will either be surveyed prior to project implementation or will be protected using measures **BF-1** through **BF-3**, as if ferrets were present.

3.5.2 HUALAPAI MEXICAN VOLE (FE)

HV-1 All treatment areas will be surveyed for Hualapai Mexican vole occupancy prior to fuels management treatments (prescribed fire, vegetation treatments) in order to determine project modifications and/or avoidance and protection of occupied areas. Until surveyed, all potential vole habitat is considered occupied. Areas not considered suitable (e.g., areas dominated by thick pine needles and duff) will also be surveyed prior to treatment to protect existing snag habitat for potential future use by Mexican spotted owls.

HV-2 Fuels management treatments (prescribed fire or vegetation treatments), construction of fire breaks, and/or staging areas for fire suppression or fuels management treatments will not be located within a vole use area. Occupied vole sites within proposed burn areas will be protected by firebreaks, precision ignition of fire around such sites, or total avoidance of the area. Fire plans will incorporate site-specific features (*e.g.*, rock outcroppings, game trails, etc.), fire behavior, and professional judgment to determine the most appropriate method to protect

occupied vole habitat. Additionally, monitoring of fuel moisture and use of the appropriate minimum impact suppression tactics will be used to reach the desired objective at each site.

HV-3 To minimize impacts to Hualapai Mexican voles during the breeding season, prescribed burns and vegetation treatments in occupied or potential vole habitat will be implemented only between September 1 and March 15. Treatment in chaparral habitat will occur during the latter part of this time frame, in winter and/or early spring. These prescribed fires will follow the summer monsoon period to encourage additional herbaceous growth. Post-monsoon burns would help avoid the dry conditions that could result in extremely hot fires that reduce the recruitment of grasses and forbs. Areas not considered suitable for Hualapai Mexican voles (*e.g.*, dominated by thick pine needles and duff) may be burned prior to September 1, if surveyed prior to treatment.

HV-4 Provide a 75- to 100-foot, minimum, unburned vegetation buffer between fuels treatment sites and riparian and dry wash areas to decrease erosion into and sedimentation of the occupied or potentially occupied vole habitat. Within ponderosa pine treatment sites, use of dry washes as a fire line may be appropriate and result in less disturbance than construction of a cup trench above the wash. Under such circumstances, BLM will prepare the wash as a fire line by raking duff and removing by hand dead branches and other debris.

HV-5 The terms and conditions from the Pine Lake Wildland/Urban Interface Biological Opinion (BLM Kingman Field Office; Consultation No. 2-21-01-F-241) continue to apply to the Pine Lake project.

3.5.3 JAGUAR (FE)

JA-1 Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (Section 2.0) to eliminate adverse effects to jaguars that may occur in dense riparian habitats on BLM-administered lands.

JA-2 Maintain dense, low vegetation in major riparian or xero-riparian corridors on BLM-administered lands in identified locations south of I-10 and Highway 86. Locations will be identified in site-specific fire management plans.

3.5.4 LESSER LONG-NOSED BAT (FE)

LB-1 Instruct all crew bosses (wildfire suppression, wildland fire use, prescribed fire, and vegetation treatments) in the identification of agave and columnar cacti and the importance of their protection.

LB-2 Prior to implementing any fuels treatment activities (prescribed fire, vegetation treatments), pre-project surveys will be conducted for paniculate agaves and saguaros that may be directly affected by fuels management activities.

LB-3 Protect long-nosed bat forage plants -- saguaros and high concentrations of agaves – from wildfire and fire suppression activities, and from modification by fuels treatment activities (prescribed fire, vegetation treatments), to the greatest extent possible. Agave concentrationsare

contiguous stands or concentrations of more than 20 plants per acre. Avoid driving over plants, piling slash on top of plants, and burning on or near plants. Staging areas for fire crews or helicopters will be located in disturbed sites, if possible.

LB-4 No seeding/planting of nonnative plants will occur in any wildfire rehabilitation site or fuels treatment site with paniculate agaves or saguaros.

LB-5 A mitigation plan will be developed by the BLM in coordination with the USFWS for prescribed fires or fuels management projects (mechanical, chemical, biological treatments) within 0.5 mile of bat roosts or in areas that support paniculate agaves or saguaros. The mitigation plan will ensure that effects to bat roosts and forage plants are minimized and will include monitoring of effects to forage plants. The plan will be approved by the USFWS.

LB-6 (Recommended) BLM personnel should examine concentrations of agaves (including shindagger *A. schottii*) within each proposed fuels treatment area, and blackline or otherwise protect from treatments any significant concentrations of agaves that appear to be amidst fuel loads that could result in mortality greater than 20 percent (>50 percent for *A. schottii).* BLM personnel should use their best judgment, based on biological and fire expertise, to determine which significant agave stands are prone to mortality greater than 20 percent (>50 percent for *A. schottii*) (see Conservation Measures FT-1 and FT-3).

LB-7 (Recommended) BLM should continue to support and cooperate in the investigations of agave relationships to livestock grazing, and of the effects of prescribed fire on paniculate agaves.

3.5.5 MEXICAN GRAY WOLF (FE; 10(J) SPECIES)

If Mexican gray wolves are re-established on public lands, then the following Conservation Measures will apply:

GW-1 No human disturbance associated with fire management activities will be within one mile of a den site from April1 to June 30.

GW-2 No human disturbance associated with fire management activities will be within one mile of known rendezvous sites from April 1 to June 30.

3.5.6 OCELOT (FE)

No species-specific Conservation Measures developed.

3.5.7 SONORAN PRONGHORN (FE)

No species-specific Conservation Measures developed.

3.5.8 BLACK-TAILED PRAIRIE DOG (FC)

If black-tailed prairie dogs are re-established on public lands, then the following Conservation Measures will apply:

PD-1 No heavy equipment operation off of existing roads within ¼ mile of black -tailed prairie dog colonies.

PD-2 No aerial retardant application within ¼ mile of black -tailed prairie dog colonies.

PD-3 No surface disturbance of black-tailed prairie dog colonies.

3.6 REPTILES

3.6.1 DESERT TORTOISE, MOJAVE POPULATION (FT)

DT-1 Take appropriate action to suppress all wildfires in desert tortoise habitat, based on preplanned analysis and consistent with land management objectives, including threats to life and property. Full suppression activities will be initiated within key desert tortoise habitat areas identified in site-specific Fire Management Plans.

DT-2 Suppress all wildfires in desert tortoise habitat with minimum surface disturbance, in accordance with the guidelines in Duck et al. (1995) and the 1995 programmatic biological opinion on fire suppression on the Arizona Strip (2-21-95-F-379).

DT-3 Pre-position suppression forces in critical areas during periods of high fire dangers.

DT-4 As soon as practical, all personnel involved in wildfire suppression (firefighters and support personnel) will be briefed and educated about desert tortoises and the importance of protecting habitat and minimizing take, particularly due to vehicle use. Fire crews will be briefed on the desert tortoise in accordance with Appendix II of Duck et al. (1995).

DT-5 If wildfire or suppression activities cannot avoid disturbing a tortoise, the Resource Advisor or monitor will relocate the tortoise, if safety permits. The tortoise will be moved into the closest suitable habitat within two miles of the collection site that will ensure the animal is reasonably safe from death, injury, or collection associated with the wildfire or suppression activities. The qualified biologist will be allowed some discretion to ensure that survival of each relocated tortoise is likely. If the extent or direction of movement of a fire makes sites within two miles of the collection site unsuitable or hazardous to the tortoise or biologists attempting to access the area, the tortoise may be held until a suitable site can be found or habitat is safe to access and not in immediate danger of burning. The Resource Advisor will contact the USFWS Arizona Ecological Services Field Office (AESFO) as soon as possible concerning disposition of any animals held for future release. Desert tortoises will not be placed on lands outside the administration of the Federal government without the written permission of the landowner. Handling procedures for tortoises, including temporary holding facilities and procedures, will adhere to protocols outlined in Desert Tortoise Council (1994).

DT-6 Upon locating a dead, injured, or sick desert tortoise, initial notification must be made to the appropriate USFWS Law Enforcement Office within three working days of its finding. Written notification must be made within five calendar days and include the date, time, and location of the animal, a photograph, and any other pertinent information. The notification will be sent to the Law Enforcement Office with a copy to the AESFO.

DT-7 Care must be taken in handling sick or injured animals to ensure effective treatment and care, and in handling dead specimens to preserve biological material in the best possible state. If possible, the remains of intact desert tortoises will be placed with educational or research institutions holding appropriate State and Federal permits. If such institutions are not available, the information noted above will be obtained and the carcass left in place. Arrangements regarding proper disposition of potential museum specimens will be made with the institution prior to implementing the action. Injured animals should be transported to a qualified veterinarian by an authorized biologist. Should any treated desert tortoise survive, the USFWS should be contacted regarding final disposition of the animal.

DT-8 The Resource Advisor or monitor(s) will maintain a record of all desert tortoises encountered during fire suppression activities. This information will include for each desert tortoise:

1) locations and dates of observation;

2) general condition and health, including injuries and state of healing, and whether animals voided their bladders;

3) location moved from and to; and

4) diagnostic markings (i.e., identification numbers of marked lateral scutes). No notching of scutes or replacement of fluids with a syringe is authorized.

DT-9 Prior to moving a vehicle, personnel will inspect under the vehicle for tortoises. If a tortoise is found under the vehicle, the tortoise will be allowed to move away from the vehicle on its own accord, if possible. Otherwise an individual will move the tortoise to a safe locality in accordance with **FS-2** and **DT-5**.

DT-10 OHV activity will be restricted to the minimum necessary to suppress wildfires. Vehicles will be parked as close to roads as possible, and vehicles will use wide spots in roads or disturbed areas to turn around. Whenever possible, a biologist or crewperson trained to recognize tortoises and their shelter sites will precede any vehicle traveling off-road to direct the driver around tortoises and tortoise burrows. Whenever possible, local fire-fighting units should provide direction and leadership during off-road travel because of their expertise and knowledge of area sensitivities.

DT-11 Fire-related vehicles will drive slow enough to ensure that tortoises on roads can be identified and avoided.

DT-12 Fire crews or rehabilitation crews will, to the extent possible, obliterate off-road vehicle tracks made during fire suppression in tortoise habitat, especially those of tracked vehicles, to reduce future use.

DT-13 To the maximum extent practical, campsites, aircraft landing/fueling sites, and equipment staging areas will be located outside of desert tortoise habitat or in previously disturbed areas. If such facilities are located in desert tortoise habitat, 100 percent of the site will be surveyed for desert tortoises by a qualified biologist approved by BLM, whenever feasible. Any tortoises

found will be moved to a safe location in accordance with **FS-2** and **DT-5**. All personnel located at these facilities will avoid disturbing active tortoise shelter sites.

DT-14 Elevated predation by common ravens or other predators attributable to fire suppression activities will be reduced to the maximum extent possible. Work areas, including campsites, landing/fueling sites, staging areas, etc. will be maintained in a sanitary condition at all times. Waste materials at those sites will be contained in a manner that will avoid attracting predators of desert tortoises. Waste materials will be disposed of at an appropriate waste disposal site. Waste means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.

DT-15 Backfiring operations are permitted where necessary in desert tortoise habitat. Burning out patches of identified habitat within or adjacent to burned areas is not permitted as a standard fire suppression measure unless necessary for firefighter or public safety or to protect property, improvements, or natural resources.

DT-16 Use of foam or retardant is authorized within desert tortoise habitat.

DT-17 Rehabilitation of vegetation in tortoise habitat will be considered, including seeding, planting of perennial species, etc.

DT-18 Recovery of vegetation will be monitored, including establishing and monitoring paired plots, inside and outside burned areas in tortoise habitat. Recovery plans will be coordinated with the USFWS and AGFD.

DT-19 The effectiveness of wildfire suppression activities and desert tortoise Conservation Measures will be evaluated after a wildfire. Procedures will be revised as needed.

3.6.2 NEW MEXICO RIDGENOSE RATTLESNAKE (FT)

RN-1 To the extent possible, minimize surface disturbing activities from fire suppression and fuels treatment activities within New Mexico ridgenose rattlesnake habitat on BLM-administered lands in the southern Peloncillo Mountains, particularly during active periods for snakes (July through October).

RN-2 Prior to using wildland fire for resource benefit, cool season (November to March) prescribed fire or other fuel treatments should be used to reduce unnatural fuel loads within suitable habitat to avoid catastrophic fires and loss of canopy cover.

RN-3 All fires that occur outside of prescriptions that will result in low intensity, low severity burns will be fully suppressed within or near suitable New Mexico ridge-nose rattlesnake habitat.

3.7 CONSERVATION AGREEMENT AND MANAGEMENT PLAN SPECIES

3.7.1 FLAT-TAILED HORNED LIZARD

No species-specific Conservation Measures developed.

3.7.2 PARADINE (KAIBAB) PLAINS CACTUS

Implement **PL-1** and **PL-2** to protect known locations during fire suppression to the extent possible and during the fuels treatment activities.

3.7.3 VIRGIN SPINEDACE

Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats (**Section 2.0**) for the stretch of the Virgin River within Arizona.

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SPECIAL EPHEMERAL RULE

Published in the Federal Register, Vol. 33, No. 238, Saturday, December 7, 1968 (Livestock Grazing Ephemeral Range: Arizona, California and Nevada).

In accordance with 43 CFR 4115.2-1 regarding special rules for grazing districts and pursuant to the receipt of recommendations of the State Directors for Arizona, California and Nevada and a factual showing of its necessity, a special rule for range designated as ephemeral is hereby approved.

Ephemeral (annual) ranges lie within the general southwest desert region extending primarily into southern Arizona, southern California and southern Nevada and include portions of the Mohave, Sonoran and Chihuahuan deserts. The region is characterized by desert type vegetation some of which may be classed as ephemeral only. Ephemeral range does not consistently produce forage, but periodically provides annual vegetation suitable for livestock grazing. In years of abundant moisture and other favorable climatic conditions a large amount of forage may be produced. Favorable years are highly unpredictable and the season is usually short lived. Ephemeral areas fall generally below the 3,200-foot contour and below the eight-inch precipitation isoline. A minor percentage of the total plant composition is made up of desirable perennial forage plants and potential to improve range condition and produce a dependable supply of forage by applying intensive management practices is lacking.

Because of the unique characteristics of ephemeral range the following special rules shall apply as follows:

- Applicable allotments or uses shall be formally designated by the District Manager as ephemeral range.

- An annual application by qualified licensees or permittees is not required unless grazing use is desired. On a year-to-year basis whenever forage exists or climatic conditions indicate the probability of an ephemeral forage crop, livestock grazing may be authorized upon application pursuant to any management requirements for the allotment.

- Use of base property (water base) during nonforage years is not feasible or economical and no use of base properties is required except during these periods when ephemeral forage is available and livestock grazing occurs.

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Description of the Route Evaluation Tree Process©

USGS Travel Management Workshop

Fort Collins, Colorado
February 22, 2006

The Route Evaluation Tree Process© (Advanced Resource Solutions, Inc.) and its associated software/database is a tool designed to assist land management agency planners and resource specialists with the systematic neutral collection and compilation of data necessary for the thorough evaluation, analysis and/or designation of both motorized and non-motorized routes. It builds upon the history of past efforts of route designation, assists with addressing various issues and concerns raised by both private and public entities (e.g. planning policy, sensitive resource protection, commercial access needs, recreational access preferences) and helps to assess compliance with numerous state and federal statutory requirements (e.g. NEPA, ESA, NHPA, Presidential Executive Orders & Proclamations, Agency Organic Acts, Mining and Grazing Acts) that need to be considered in this type of planning. Additionally, the Route Evaluation Tree Process© helps to build into the land use planning process a means by which to achieve desired outcomes that are specifically tailored to the needs and issues unique to a planning area. The Route Tree Evaluation Process© is not a replacement for NEPA process, documents, or analysis, but rather is a tool designed to assist with the systematic collection of sensitive resource and route-use information that can then be subsequently used to evaluate and designate routes in a NEPA-compliant manner.

In order to address the many facets of route evaluation and transportation planning the Route Evaluation Tree Process© is divided into a number of smaller finite tasks or steps, which allows for the fine-tuning of the collection information needed to successfully evaluate and designate routes. The process is illustrated on the attached Route Evaluation Tree Process© for Travel Management Planning (see Attachment 1).

The actual use of the Route Evaluation Tree©[1] (Evaluation Tree©) (see Attachment 2), is only one sub-step (#17) amongst the 25 identified in the Route Evaluation Process©. Specifically, the Route Evaluation Tree software systematically guides the "evaluator" through a series of questions and associated project-specific drop-down menus that assist with addressing compliance with a variety of pertinent statutory requirements that principally address the need to protect identified sensitive resources, as well as commercial/administrative access needs and public recreational access issues. The questions and menus allow both for narrowly focused route-by-route, as well as landscape scale assessment (the latter of which allows for better consideration of broader network, collective and/or cumulative effects). Specific steps in the

[1] The process has previously been referred to as the "Route Evaluation/Designation Decision Tree Process" or "Decision Tree". A "decision tree" is a technique or tool for assisting in the decision making process by leading one through a series of yes/no questions based upon input received (flowchart). A "decision" in the context of NEPA has a more legalistic meaning specifically relating to the NEPA process. The name "Decision Tree" was used to indicate it was created in a style, however to avoid the potential for misunderstanding of the meaning of the word "decision", it has been removed from the title of the process.

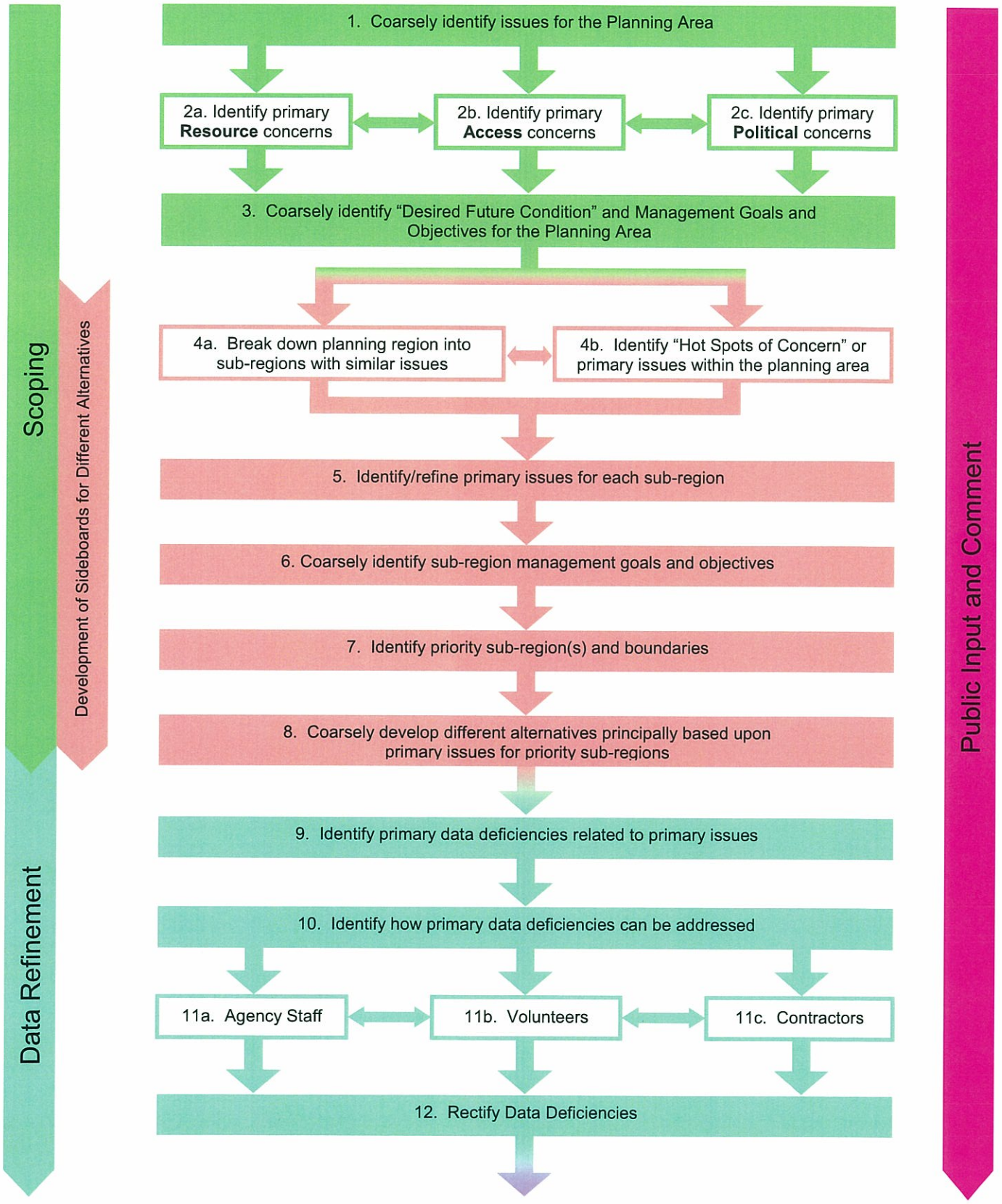
process also allow for the identification and/or delineation of planning areas/units at a number of geographic scales (e.g. Travel Management Areas, sub- regions, watersheds, etc.) thereby allowing the fine tuning of management guidelines and goals at various geographic scales tailored to specific project needs or issues. Additionally, the process provides for the development of project- specific menu choices that allow for the systematic consideration and selection of measures designed to eliminate, minimize or mitigate resource impacts. The result of this process is the creation of different route network options or alternatives that utilize different thresholds of acceptable impact to address the various identified issues. Lastly, the Route Evaluation Tree software compiles all the data collected during the evaluation into a database that can be queried and if desired, integrated with other Access databases (e.g. GIS). Whether used as a stand alone database or integrated with other databases, this information can be utilized to assist in making decisions within the environmental impact analysis process required by the National Environmental Policy Act (NEPA) and/or can be utilized to assist with other planning activities (e.g. grazing, mining, oil & gas permits, timber plans, etc.).

The Route Evaluation Tree Process © has been or is being successfully used by a number of BLM Field Offices and USDA National Forests in the western United States. It is or has been utilized in numerous EIS- and EA- level documents, including BLM Resource Management Plans and Travel Management Plans, and USFS Motorized Travel Plans. Several of these planning efforts include National Monuments. The process has been carefully honed through this experience to meet or exceed the needs of the BLM Planning Handbook and the new USFS rule concerning OHVs and travel management and is continually being refined in response to feedback from both the public and agency staff. The process is not confined exclusively to motorized planning and has been and is being used to evaluate non-motorized access needs as well on a number of projects.

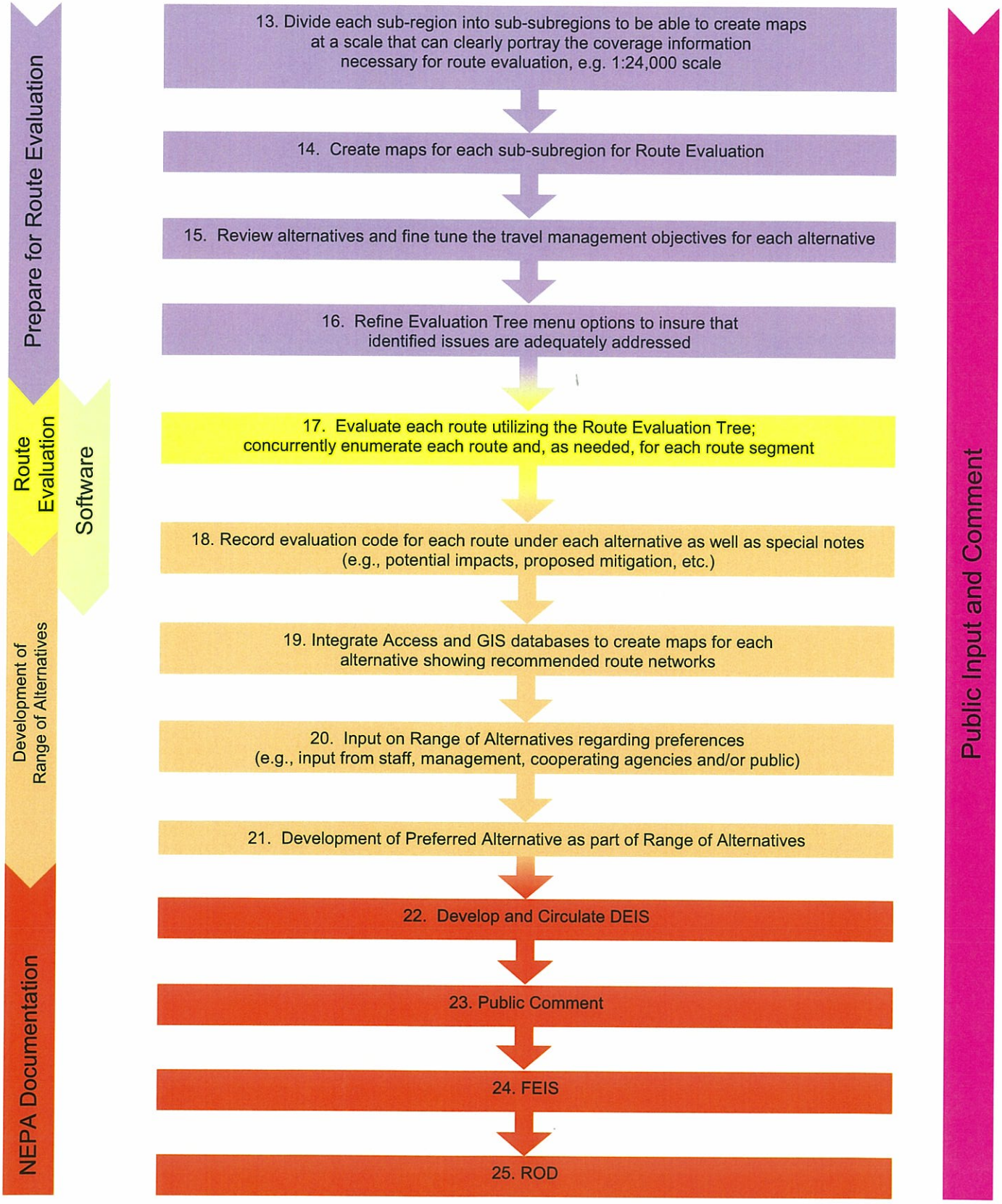
In summary, the Route Evaluation Tree Process is appreciated by agency planners, NEPA specialists, resource specialists and managers as a tool that is primarily helpful for its ability to prompt staff in the systematic collection of a variety of sensitive resource, recreational and commercial data that is necessary both for statutory compliance and to meet concerns raised by the public. It does this in a manner that collects the data neutrally and then stores it in a standardized and easily retrievable format, which is both presentable to the public in a number of easily understood formats, and readily linked to GIS, ACCESS and EXCEL databases. In order to reduce redundancy of effort, the process was specifically designed to build upon and enhance preexisting agency databases. When the process is performed properly, the database that is created not only consists of that information which is necessary for the proper evaluation and designation of routes, but when linked with GIS databases will assist agency staff both in the creation of a range of route network options/alternatives, and in the analysis of specific environmental impacts and cumulative effects as part of their NEPA documentation.

Attachment 1

Route Evaluation Process©
for Travel Management Planning



Route Evaluation Process©
for Travel Management Planning



Attachment 2

Route Evaluation Tree©

Main Features Include:

1. Logical, standardized, balanced and repeatable approach to route evaluation.
2. Systematic questions to assess compliance with a variety of pertinent statutory requirements including:
   - Valid existing rights and other vested rights or permitted uses
   - Degree of potential impact or degradation to specially protected resources, such as species protected by the Federal Endangered Species Act (ESA), cultural, historic and scientific objects protected by the Historic Preservation and Antiquities Acts (e.g. Monument Proclamations, Section 106) and wilderness values as protected by the Wilderness Act.
   - Implementation of Agency Organic Acts and their charge to balance the public's need/desire for access to Federal lands with resource protection through a philosophy of management for "multiple use". Such consideration includes recognizing the value of providing a range of recreational opportunities and treating those opportunities in accordance with the Organic Acts as a resource worthy of protection.
3. Systematic consideration of access opportunities and resource protection needs on both a narrowly focused route by route assessment, as well as a broad-based cumulative assessment of the total network's effect.
4. Systematic consideration of mitigation and/or limited designation as a means by which to ameliorate resource impacts. Recommended designation options include a range from open to closed, and a number of intermediate actions as a means by which to balance access needs and resource protection.
5. Systematic recordation of data allowing for future retrieval and review/updating of evaluation information as needed (i.e. evaluation pathways are numerically coded).
6. Systematic ability to assess a route's recommended designation status based upon the management goals of each individual alternative.

How does the Tree Work?

1. The region or management area in which the route is located is thoroughly evaluated. Resource protection, recreation and commercial access concerns pertinent to route are identified. The patterns of these identified uses and concerns, as well as their trends are also noted. Other related issues such as law enforcement, route maintenance and user conflicts are further identified.
2. The desired future condition and management goals of each proposed alternative are identified and reviewed.
3. Each route is systematically numbered. This both allows for tracking the evaluation process and enables the public to make comment on specific routes.
4. Each route is systematically assessed by sequentially answering the questions in the Evaluation Tree. Specifically, the questions are assessed and answered in the context of the regional concerns identified in step #1 and the management goals identified in step #2 for each of the alternatives.
5. The recommendation of a designation for each route under each alternative is dictated by addressing the management goals for that alternative.
6. The specific answers to each question for each route are recorded by the final coded answer.
7. Detailed information that may have been critical to the answer of any question(s) or in the determination of the final outcome is recorded as part or the individual route evaluation record.

Recommended Route Designations

Close 01

Close: A route that is recommended for permanent closure to all use. Physical closure may include restoring the route to the degree possible to blend with surrounding landscape, as well as installation of physical barriers and signing at the original departure point, if necessary.

Mitigate/Limit 09

Mitigate/Limit: A route that is recommended for limited use by certain parties or entities with valid, vested, or implied rights of access, or to certain vehicle types, seasons of use, etc., following mitigation action(s) aimed at avoiding, minimizing or mitigating certain estimated impacts identified during the route evaluation process.

Limit 05

Limit: A route that is recommended for limited use by certain parties or entities with valid, vested, or implied rights of access, or to certain vehicle types, seasons of use, etc.

Mitigate/Open 05

Mitigate/Open: A route that is recommended open for all uses, following mitigation action(s) aimed at avoiding, minimizing or mitigating certain estimated impacts identified during the route evaluation process.

Open 02

Open: A route that is recommended open for all uses.

Version October 11, 2004

Route Evaluation Tree©

A. Is the route an officially recognized right-of-way or an officially recognized County or State route?

C. Does the route provide commercial, private property, or administrative access (e.g. via prescriptive or vested rights, RS 2477)?
- Is the route a regional route that serves more than one planning sub-region?
- Is the route a principal means of connectivity within a sub-region?
- Officially recognized as part of a Federal planning document and is subject to maintenance?

B. Might the continued use of this route impact State or Federal special status species or their habitat or cultural or any other specially protected resources or objects identified by Agency planning documents, plan amendments or any other special area designations (e.g. National Monuments)?

F. Might the continued use of this route impact State or Federal special status species or their habitat or cultural or any other specially protected resources or objects identified by Agency planning documents, plan amendments or any other special area designations (e.g. National Monuments)?

G. Might the continued use of this route impact State or Federal special status species or their habitat or cultural or any other specially protected resources or objects identified by Agency planning documents, plan amendments or any other special area designations (e.g. National Monuments)?

D. Can the impacts to the above sensitive resources be avoided, minimized, or mitigated?

E. Would route closure or some other form of mitigation address cumulative effects on various other resources not specifically identified above as sensitive or specially protected?

H. Can the impacts to the above sensitive resources be avoided, minimized, or mitigated?

I. Would route closure or some other form of mitigation address cumulative effects on various other resources not specifically identified above as sensitive or specially protected?

J. Can the impacts to the above sensitive resources be avoided, minimized, or mitigated?

K. Would route closure or some other form of mitigation address cumulative effects on various other resources not specifically identified above as sensitive or specially protected?

L. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

M. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

N. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

O. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

P. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

Q. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

R. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

S. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

T. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

U. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

V. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

W. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

X. Can the commercial, private-property and public uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

Z. Can the commercial, private-property and public uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

BB. Can the commercial, private-property and public uses of this route be adequately met by another route(s) that minimizes cumulative effects on various resources not specifically identified above as sensitive or specially protected?

DD. Can the commercial, private-property and public uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

FF. Can the commercial, private-property and public uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

HH. Can the commercial, private-property and public uses of this route be adequately met by another route(s) that minimizes cumulative effects on various resources not specifically identified above as sensitive or specially protected?

JJ. Can the public uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

KK. Can the public uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

LL. Can the public uses of this route be adequately met by another route(s) that minimizes cumulative effects on various resources not specifically identified above as sensitive or specially protected?

Y. Can the commercial or private-property uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

AA. Can the commercial or private-property uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

CC. Can the commercial or private-property uses of this route be adequately met by another route(s) that minimizes cumulative effects on various resources not specifically identified above as sensitive or specially protected?

EE. Can the commercial or private-property uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

GG. Can the commercial or private-property uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

II. Can the commercial or private-property uses of this route be adequately met by another route(s) that minimizes cumulative effects on various resources not specifically identified above as sensitive or specially protected?

Open 01 · Open 02 · Open 03 · Limit 06 · Open 07 · Limit 28 · Open 15

Close 01 · Mitigate/ Limit 01 · Limit 01 · Mitigate/ Limit 02 · Close 02 · Limit 02 · Mitigate/ Open 01 · Open 04
Close 03 · Limit 03 · Close 04 · Limit 04 · Open 05
Close 05 · Mitigate/ Limit 03 · Limit 05 · Mitigate/ Limit 04 · Close 06 · Limit 06 · Mitigate/ Open 02 · Open 06
Close 07 · Mitigate/ Limit 05 · Limit 07 · Mitigate/ Limit 06 · Close 08 · Limit 08 · Mitigate/ Open 03 · Open 07
Close 09 · Limit 09 · Close 10 · Limit 10 · Open 08
Close 11 · Mitigate/ Limit 07 · Limit 11 · Mitigate/ Limit 08 · Close 12 · Limit 12 · Mitigate/ Open 04 · Open 09
Close 13 · Mitigate/ Limit 09 · Limit 13 · Close 14 · Mitigate/ Open 05 · Close 31
Close 15 · Limit 14 · Close 16 · Open 10 · Close 32
Close 17 · Mitigate/ Limit 10 · Limit 15 · Close 18 · Mitigate/ Open 06 · Open 11 · Close 33
Close 34 · Open 16 · Limit 29
Close 19 · Mitigate/ Limit 11 · Limit 16 · Close 20 · Open 12 · Mitigate/ Limit 12 · Limit 17 · Mitigate/ Open 07
Close 21 · Limit 18 · Close 22 · Open 13 · Limit 19
Close 23 · Mitigate/ Limit 13 · Limit 20 · Close 24 · Limit 21 · Mitigate/ Limit 14
Close 25 · Mitigate/ Limit 15 · Limit 22 · Close 26 · Limit 23 · Mitigate/ Limit 16
Close 27 · Limit 24 · Close 28 · Open 14 · Limit 25
Close 29 · Mitigate/ Limit 17 · Limit 26 · Close 30 · Limit 27 · Mitigate/ Limit 18

SPECIAL CULTURAL RESOURCE MANAGEMENT AREAS

Special Cultural Resource Management Area (SCRMA) – An area containing cultural resources (archaeological sites, historic sites or places of traditional cultural importance) that are particularly important for public use, scientific use, traditional use or other uses as defined in BLM Manual 8110.4. Management prescriptions for these areas should reflect and support the primary values for which the areas are allocated. For example, management prescriptions for a SCRMA allocated primarily for public use should focus on developing and interpreting sites for public visitation, including heritage tourism. Management prescriptions for a SCRMA allocated primarily for scientific use should focus on protecting sites for study, supporting field schools and other research efforts. Management prescriptions for a SCRMA allocated primarily for traditional use should seek to accommodate the traditional cultural practices of Native American tribes or other cultural groups that ascribe religious or other heritage values to specific cultural properties or places within the area. Management prescriptions for a SCRMA allocated primarily to protect scarce sites of singular importance that should not be subjected to invasive studies or other uses that would threaten their present condition should focus on conserving sites for the future.

Management prescriptions for a single SCRMA can focus on more than one type of use, just as a single cultural property can be allocated to more than one of the use categories described in Manual 8110.4. For example, a SCRMA might contain a set of cultural properties that, linked together and interpreted as a group, would make a good auto tour route for heritage tourism. At the same time, the area might contain several cultural properties of unusual historic importance that should be segregated from land or resources uses that might impair their present condition or setting. While both kinds of properties should receive management emphasis, they can be subsumed within a single land use allocation with management prescriptions tailored to support public visitation of the sites along the auto tour route, and protection for the sites that warrant segregation.

The primary purpose of this land use allocation is to differentiate some portions of a planning area from others in terms of cultural resource values. The allocation can denote priority for the expenditure of time and funds or the need for special protection to achieve management objectives. The allocation might also indicate priority areas for proactive inventory. However, highlighting a geographic area for its special cultural resource values does not diminish the importance of cultural resources in other areas. Cultural resources on lands not included within SCRMAs still need to be managed for the values they contain and opportunities they afford.

This land use allocation carries no inherent restrictions on competing land uses. Decisions about proposed land uses that may affect individual cultural properties within SCRMAs will be made on a case-by-case basis, weighing the cultural resource values in the balance along with all other considerations. Enclosing cultural properties within SCRMAs does not add value to those properties beyond what they would have if they were not within SCRMAs. SCRMA allocations

provide focus to management but they do not in themselves increase the scientific, public, traditional or other values that cultural properties possess. Some cultural properties within SCRMAs may, in fact, have little or no value beyond the information gathered by documenting them in the field.

ACEC is a designation that can be used to protect and provide special management attention to areas with significant cultural resource values. ACEC designation should be considered whenever an area containing important cultural resources meets the criteria for designation. However, allocation of a SCRMA can be useful in focusing management attention on an area not meeting the criteria for designation as an ACEC or where designation of an ACEC would be inappropriate. In such cases, a SCRMA can be allocated, incorporating management prescriptions that will provide the special protection or other emphasis needed to achieve management objectives.

CURRENT WITHDRAWALS IN THE YUMA FIELD OFFICE

Agency/Project	Mechanism	Date
U.S. Bureau of Reclamation, Temporary Withdrawal Colorado River Reclamation Project	Secretarial Order	9/15/1902
U.S. Bureau of Reclamation, Temporary Withdrawal Colorado River Reclamation Project	Secretarial Order	2/5/1903
U.S. Bureau of Reclamation, Colorado River Reclamation Project	Secretarial Order	4/14/1903
U.S. Bureau of Reclamation, Temporary Withdrawal Colorado River Project, Yuma and Picacho Dam Sites	Secretarial Order	8/1/1903
U.S. Bureau of Reclamation, Colorado River Project	Secretarial Order	8/1/1903
U.S. Bureau of Reclamation, Yuma Project, Ditch Riders Quarters	Secretarial Order	8/5/1903
U.S. Bureau of Reclamation, Colorado River Project	Secretarial Order	4/9/1904
U.S. Bureau of Reclamation, Temporary Withdrawal Colorado River Project, Laguna Reservoir Site	Secretarial Order	7/1/1904
U.S. Bureau of Reclamation, Yuma Project	Secretarial Order	9/30/1904
U.S. Bureau of Reclamation, Yuma Project	Secretarial Order	7/20/1905
U.S. Bureau of Reclamation, Yuma Project	Missing Document	5/26/1906
U.S. Bureau of Reclamation, Yuma Project	Missing Document	6/23/1908
U.S. Bureau of Reclamation, Colorado River Project	Secretarial Order	6/15/1910
U.S. Department of Defense, National Guard of Arizona	Executive Order 1255	10/13/1910
U.S. Bureau of Reclamation, Colorado River Survey		3/27/1913
U.S. Bureau of Reclamation, Yuma Project (AZAZAAA3528)	Secretarial Order	5/5/1917
U.S. Bureau of Reclamation, Yuma Project (AZA17413)	Secretarial Order	5/5/1917
U.S. Bureau of Reclamation, Yuma Mesa Auxiliary Project	Secretarial Order	7/12/1917
U.S. Bureau of Reclamation, Sentinel Project	Secretarial Order	11/16/1918
U.S. Bureau of Reclamation, Yuma Project	Secretarial Order	10/22/1919
U.S. Bureau of Reclamation, Yuma Project	Secretarial Order	8/7/1920
U.S. Bureau of Reclamation, Yuma Project	Secretarial Order	12/10/1921
U.S. Bureau of Reclamation, Yuma Project, Ditch Riders Quarters	Secretarial Order	12/10/1921
U.S. Bureau of Reclamation, Yuma Project (AZAZAA003530)	Secretarial Order	12/19/1924
U.S. Bureau of Reclamation, Yuma Project, Ditch Riders Quarters (AZA013414)	Secretarial Order	12/19/1924
U.S. Bureau of Reclamation, Colorado River Project	Secretarial Order	1/30/1929
U.S. Customs, San Luis #71	Secretarial Order	8/26/1929
U.S. Bureau of Reclamation, Colorado River Storage Project		4/5/1930
U.S. Bureau of Reclamation, Colorado River Storage Project	Secretarial Order	6/4/1930
U.S. Bureau of Reclamation, Colorado River Reclamation Project	Secretarial Order	3/26/1931
U.S. Bureau of Reclamation, Colorado River Storage Project	Secretarial Order	10/6/1931
U.S. Fish and Wildlife Service, Kofa Game Range	Executive Order 8039	1/25/1939
U.S. Fish and Wildlife Service, Cabeza Prieta Game Range	Executive Order 8038	1/25/1939
U.S. Bureau of Reclamation, Gila Project	Secretarial Order	5/23/1940
U.S. Fish and Wildlife Service, Imperial National Wildlife Refuge	Executive Order 8685	2/14/1941
U.S. Bureau of Reclamation, Colorado River Storage Project	Bureau Order	8/3/1949
U.S. Bureau of Reclamation, Colorado River Storage Project	Secretarial Order	2/19/1951
U.S. Department of Air Force, Dateland Air Force Auxiliary Field	Public Land Order 780	12/29/1951
U.S. Department of Army, Yuma Test Station	Public Land Order 848	7/8/1952

Agency/Project	Mechanism	Date
U.S. Department of Defense, Vincent Air Force Base	Public Land Order 1889	6/26/1959
U.S. Bureau of Reclamation, Colorado River Control	Public Land Order 2644	4/6/1962
U.S. Fish and Wildlife Service, Cibola National Wildlife Refuge	Public Land Order 3442	8/21/1964
U.S. Bureau of Reclamation, Colorado River Storage Project	Public Land Order 3752	7/30/1965
U.S. Bureau of Land Management, Crystal Hill Recreation Area	Public Land Order 4216	4/29/1967
U.S. Department of Justice, Customs Facility (Administrative Site)	Public Land Order 4525	9/30/1968
Withdrawal for Flood Control	Public Land Order 5003	1/26/1971
U.S. Department of Army, Yuma Proving Ground	Public Land Order 6475	10/5/1983
U.S. Fish and Wildlife Service, Kofa National Wildlife Refuge	Public Law 100-696	11/18/1988
U.S. Navy, Marine Corps Air Station	Public Land Order 6804	10/16/1990
U.S. Bureau of Land Management, Eagletail Mountains Wilderness Area	Public Law 101-628	11/28/1990
U.S. Bureau of Land Management, Muggins Mountains Wilderness Area	Public Law 101-628	11/28/1990
U.S. Bureau of Land Management, New Water Mountains Wilderness Area	Public Law 101-628	11/28/1990
U.S. Bureau of Land Management, Trigo Mountains Wilderness Area	Public Law 101-628	11/28/1990
U.S. Bureau of Land Management, Big Maria Mountains Wilderness	Public Law 103-433	10/31/1994
U.S. Bureau of Land Management, Little Picacho Wilderness	Public Law 103-433	10/31/1994
U.S. Bureau of Land Management, Riverside Mountains Wilderness	Public Law 103-433	10/31/1994
U.S. Bureau of Land Management, Gila River Cultural Area of Critical Environmental Concern	Public Land Order 7212	8/27/1996
U.S. Marine Corps and U.S. Air Force, Barry M. Goldwater Range	Public Law 106-65	10/5/1999

GUIDE TO STIPULATIONS WITH CODES

MACRO INDEX

The standard stipulations on the following pages are organized by subject matter; the alphanumeric code preceding each stipulation corresponds to the following list.

The page each starts on is given on the right.

A. CONSTRUCTION PLANS

a1 The holder shall construct, operate, and maintain the facilities, improvements, and structures within this ROW in strict conformity with the plan(s) of development which was (were) approved and made part of the grant on [user entry]. Any relocation, additional construction, or use that is not in accord with the approved plan(s) of development, shall not be initiated without the prior written approval of the authorized officer. A copy of the complete ROW grant, including all stipulations and approved plan(s) of development, shall be made available on the right-of-way area during construction, operation, and termination to the authorized officer. Noncompliance with the above will be grounds for an immediate temporary suspension of activities if it constitutes a threat to public health and safety or the environment.

NOTE: Select the appropriate version of the text inside parentheses, delete the other versions and this note.

a2 The holder shall submit a plan or plans of development that describe in detail the construction, operation, maintenance, and termination of the ROW and its associated improvements and/or facilities. The degree and scope of these plans will vary depending upon (1) the complexity of the ROW or its associated improvements and/or facilities, (2) the anticipated conflicts that require mitigation, and (3) additional technical information required by the authorized officer. The plans will be reviewed and, if appropriate, modified and approved by the authorized officer. An approved plan of development shall be made a part of the ROW grant.

a3 The holder shall contact the authorized officer at least [user entry] days prior to the anticipated start of construction and/or any surface disturbing activities. The authorized officer may require and schedule a preconstruction conference with the holder prior to the holder's commencing construction and/or surface disturbing activities on the ROW. The holder and/or his representative shall attend this conference. The holder's contractor, or agents involved with construction and/or any surface disturbing activities associated with the ROW, shall also attend this conference to review the stipulations of the grant including the plan(s) of development.

a4 The holder shall designate a representative(s) who shall have the authority to act upon and to implement instructions form the authorized officer. The holder's representative shall be available for communication with the authorized officer within a reasonable time when construction or other surface disturbing activities are underway.

a5 The authorized officer may suspend or terminate in whole or in part, any notice to proceed which has been issued when, in his judgment, unforeseen conditions arise which result in the approved terms and conditions being inadequate to protect the public health and safety or to protect the environment.

a6 The holder shall not initiate any construction or other surface disturbing activities on the ROW without the prior written authorization of the authorized officer. Such authorization shall be a written notice to proceed issued by the authorized officer. Any notice to proceed shall authorize construction or use only as therein expressly stated and only for the particular location or use therein described.

a7 Where slope stabilization requires significant terrace or bench construction, the holder shall include engineering drawings for this work to be reviewed and, where appropriate, modified and approved by the authorized officer.

a8 No surface disturbing activities shall take place on the subject ROW until the associated APD is approved. The holder will adhere to special stipulations of the Surface Use Program of the approved APD, relevant to any ROW facilities.

a9 The holder shall perform the necessary transportation studies and recommend a road standard to meet the purpose of the road. This standard and the topography, soils, and geologic hazards of the lands crossed will define the level of survey and design necessary. Accepted standards for road design, including the BLM Manual Section may be used.

a10 The holder shall obtain the services of a licensed professional engineer to locate, survey, design, and construct the proposed road as directed by the authorized officer. The road design shall be based on the (1) width, (2) maximum grade, and (3) design speed of the road.

a11 The holder shall submit standard or typical cross sections of the road to be constructed, maintained, or reconstructed as directed by the authorized officer. The cross sections should include, but are not limited to, the proposed road width, ditch dimensions, cut and fill slopes, and typical culvert installation.

a12 As directed by the authorized officer, the completed subgrade shall be submitted to the BLM for approval prior to the placement of any surfacing.

a13 As directed by the authorized officer, surfacing shall be designed to accommodate anticipated loading and traffic volumes and shall provide for future maintenance.

a14 The holder shall submit a plan of development that describes in detail the construction, operation, maintenance, and termination of the ROW and its associated improvements and/or facilities. The plan shall include drawings in sufficient detail in enable a complete evaluation of all proposed structures, facilities, and landscaping to ensure compliance with the requirements of the grant and to ensure visual compatibility with the site. These drawings shall be the construction documents and must show dimensions, materials, finishes, etc. to demonstrate compliance with the requirements. The plans will be reviewed and, if appropriate, modified and approved by the authorized officer. An approved plan of development shall be made a part of the ROW grant.

a15 The design and location of all facilities shall be approved by the authorized officer prior to construction.

a16 No signs or advertising devices shall be placed on the premises or on adjacent public lands, except those posted by or at the direction of the authorized officer.

a17 The site plan, building design, floor plan, tower design, and electrical drawings submitted with the original proposal shall be made a part of this ROW grant. All construction must conform to these drawings.

B. CULTURAL/PESTICIDES/WEEDS/MONUMENTS

b1 Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

b2 Use of pesticides shall comply with the applicable Federal and State laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, the holder shall obtain from the authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the authorized officer. Emergency use of pesticides shall be approved in writing by the authorized officer prior to such use.

b3 The holder shall be responsible for weed control on disturbed areas within the limits of the ROW. The holder is responsible for consultation with the authorized officer and/or local authorities for acceptable weed control methods (within limits imposed in the grant stipulations).

b4 The holder shall protect all survey monuments found within the ROW. Survey monuments include, but are not limited to, General Land Office and BLM Cadastral Survey Corners, reference corners, witness points, U.S. Coastal and Geodetic benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. In the event of obliteration or disturbance of any of the above, the holder shall immediately report the incident, in writing, to the authorized officer and the respective installing authority if known. Where General Land Office of BLM ROW monuments or references are obliterated during operations, the holder shall secure the services of a registered land surveyor or a BLM cadastral surveyor to restore the disturbed monuments and references using surveying procedures found in the *Manual of Surveying Instructions for the Survey of the Public Lands in the United States,* latest edition. The holder shall record such survey in the appropriate county and send a copy to the authorized officer. If the BLM cadastral surveyors or other Federal surveyors are used to restore the disturbed survey monument, the holder shall be responsible for the survey cost.

C. CIVIL RIGHTS/CORPS OF ENGINEERS 404 PERMITS

c1 The holder of this ROW grant or the holder's successor in interest shall comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.) and the regulations of the Secretary of the Interior issued pursuant thereto.

c2 The holder shall comply with the construction practices and mitigating measures established by 33 CFR 323.4, which sets forth the parameters of the "nationwide permit"

required by Section 404 of the Clean Water Act. If the proposed action exceeds the parameters of the nationwide permit, the holder shall obtain an individual permit from the appropriate office of the USACOE and provide the authorized officer with a copy of same. Failure to comply with this requirement shall be cause for suspension or termination of this ROW grant.

D. STAKING

d1 The holder shall place slope stakes, culvert location and grade stakes, and other construction control stakes as deemed necessary by the authorized officer to ensure construction in accordance with the plan of development. If stakes are disturbed, they shall be replaced before proceeding with construction.

d2 The holder shall mark the exterior boundaries of the ROW with a stake and/or lath at [user entry] foot intervals. The intervals may be varied at the time of staking at the discretion of the authorized officer. The tops of the stakes and/or laths will be painted and the laths flagged in a distinctive color as determined by the holder. The survey station numbers will be marked on the boundary stakes and/or laths at the entrance to and the exit from public land. Holder shall maintain all boundary stakes and/or laths in place until final cleanup and restoration is completed and approved by the authorized officer. The stakes and/or laths will then be removed at the direction of the authorized officer.

d3 The holder shall survey and clearly mark the centerline and/or exterior limits of the ROW, as determined by the authorized officer.

d4 No surface disturbance or construction activity will be allowed within [user entry] feet of [user entry] which shall be clearly marked as specified by the authorized officer. Any deviation from this requirement shall have the prior written approval of the authorized officer.

d5 The holder shall set center line stakes to identify the location of the proposed road as directed by the authorized officer.

d6 Cut and fill slope stakes shall be set as directed by the authorized officer.

d7 Culverts and lateral ditches shall be staked for location, skew, and elevation as directed by the authorized officer.

E. CLEARING

e1 ROW clearing shall be limited to ([user entry] on each side of the centerline) (the limits of the ROW) (the limits of the cut and fill stakes).

NOTE: Select the appropriate version of the text inside parentheses, delete the other versions and this note.

e2 A buffer strip of vegetation [user entry] feet wide shall be left between areas of surface disturbance and riparian vegetation as determined necessary by the authorized officer.

e3 Suitable topsoil material removed in conjunction with clearing and stripping shall be conserved in stockpiles (within the ROW) (at the following staked locations: [user entry]). Top soil shall be stripped to an average depth of [user entry] inches. A total of [user entry] cubic yards of topsoil shall be stockpiled.

NOTE: Select the appropriate version of the text within parentheses, delete the other versions and this note.

e4 The holder shall trim trees in preference to cutting trees and shall cut trees in preference to bulldozing them as directed by the authorized officer.

e5 The holder shall not clear trees to allow passage of equipment for stringing the line without the prior written approval of the authorized officer.

e6 Excavation and embankment quantities shall be balanced as nearly as design and construction considerations allow. Any waste and/or borrow needs shall be specifically identified by the holder.

e7 Material encountered on the project and needed for select borrow, surfacing, riprap, or other special needs shall be conserved.

e8 Excess excavated, unsuitable, or slide materials shall be disposed of as directed by the authorized officer.

e9 As directed by the authorized officer, clearing limits shall extend [user entry] feet beyond the cut stakes and [user entry] feet beyond the fill stakes.

e10 Clearing and grubbing debris shall not be placed or permitted to remain in or under any embankment sections. Clearing and grubbing debris may be placed under waste material with a minimum of three feet of cover as directed by the authorized officer.

e11 Prior to any operations, the holder, if required, shall enter into a timber sale contract with the BLM for timber designated for cutting on the ROW.

e12 The holder shall cut and deck all timber located within the ROW as directed by the authorized officer.

e13 The holder shall clear and remove all roots, woody plants over [user entry] feet high, and other vegetative materials from the surfaces to be covered by embankments and disturbed by excavation. Clearing shall be accomplished without mixing topsoil with vegetation. Cleared vegetative materials shall be disposed of as directed by the authorized officer; excess mineral materials shall be stockpiled for disposal by the U.S. or used in construction in accordance with 43 CFR 2801.1-1(d).

e14 Earthwork areas shall be cleared of vegetation and the topsoil stockpiled for future rehabilitation. Prior to fill construction, the existing surface shall be sloped to avoid sharp banks and allow equipment operations. No fills shall be made with water-saturated soils. Materials

shall be placed in uniform layers not to exceed [user entry]. Construction equipment shall be routed evenly over the entire width of the fill to obtain a thorough compaction.

e15 Holder shall remove only the minimum amount of vegetation necessary for the construction of structures and facilities. Topsoil shall be conserved during excavation and reused as cover on disturbed areas to facilitate regrowth of vegetation.

F. CONSTRUCTION

f1 No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of [user entry] inches deep, the soil shall be deemed too wet to adequately support construction equipment.

f2 Construction activity and surface disturbance will be prohibited during the period from [user entry] to [user entry] for the protection of [user entry]. Any exceptions to this requirement must have prior written approval from the authorized officer.

f3 The holder shall conduct all activities associated with the construction, operation, and termination of the ROW within the authorized limits of the ROW.

f4 Construction holes left open over night shall be covered. Covers shall be secured in place and shall be strong enough to prevent livestock or wildlife from falling through and into a hole.

f5 All design, material, and construction, operation, maintenance, and termination practices shall be in accordance with safe and proven engineering practices.

f6 Holder shall limit excavation to the areas of construction. No borrow areas for fill material will be permitted on the site. All off-site borrow areas must be approved in writing by the authorized officer in advance of excavation. All waste material resulting from construction or use of the site by holder shall be removed from the site. All waste disposal sites on public land must be approved in writing by the authorized officer in advance of use.

G. CATTLEGUARDS/FENCES

g1 Cattleguards shall be [user entry] feet by [user entry] feet and as a minimum meet the [user entry] standard. They shall be set on (timber, precast concrete, cast-in-place concrete) bases at right angles to the roadway. Backfill around cattleguards shall be thoroughly compacted. A bypass gate shall be built adjacent to each cattleguard structure. Gate materials, dimensions, and construction shall conform to the requirements as specified by the authorized officer.

NOTE: Select one material from those within parentheses, delete the rest and this note.

g2 Cattleguards shall be constructed and installed as shown on attached drawings and specifications as provided by the authorized officer.

g3 Fences, gates, and brace panels shall be reconstructed to appropriate BLM standards and/or specifications as determined by the authorized officer.

When construction activity in connection with the ROW breaks or destroys a natural barrier used for livestock control, the gap, thus opened, shall be fenced to prevent the drift of livestock. The subject natural barrier shall be identified by the authorized officer and fenced by the holder as per instruction of the authorized officer.

H. DRAINAGE STRUCTURES

h1 The holder shall furnish and install culverts of the gauge, materials, diameter(s), and length(s) indicated and approved by the authorized officer. Culverts shall be free of corrosion, dents, or other deleterious conditions. Culverts shall be placed on channel bottoms on firm, uniform beds which have been shaped to accept them and aligned to minimize erosion. Backfill shall be thoroughly compacted. No equipment shall be routed over a culvert until backfill depth is adequate to protect the culverts.

h2 As directed by the authorized officer, construction stakes shall be set for each culvert to show location as well as inlet and outlet elevations, diameter, and length.

h3 As directed by the authorized officer, the holder shall submit a complete culvert list to reflect the drainage plan for the road. The list shall include, but not be limited to, size(s), lengths, and locations of the culverts.

h4 The minimum diameter for culverts shall be 18 inches.

h5 As directed by the authorized officer, drainage structures with an end area greater than [user entry] square feet and all bridges shall be designed by a registered professional engineer. Design of drainage facilities shall include, but not limited to, design storms, debris, bedload, fish passage, erosion, and floodplain impact.

h6 The holder shall construct low-water crossings in a manner that will prevent any blockage or restriction of the existing channel. Material removed shall be stockpiled for use in rehabilitation of the crossings.

h7 The holder shall design and construct adequate water-control structures in each drainage crossing to prevent excessive erosion along the pipeline and protect the pipeline from the natural erosion process within the drainage.

h8 All roads and parking areas shall be constructed to provide drainage and minimize erosion. Culverts shall be installed if necessary to maintain drainage. All areas to be used for roads and parking shall be surfaced with [user entry].

I. CONSTRUCTION ACCESS

i1 Specific sites as identified by the authorized officer (e.g., archaeological sites, areas with threatened and endangered species, or fragile watersheds) where construction equipment and vehicles shall not be allowed, shall be clearly marked onsite by the holder before any construction or surface disturbing activities begin. The holder shall be responsible for assuring that construction personnel are well trained to recognize these markers and understand the equipment movement restrictions involved.

i2 The holder shall provide for the safety of the public entering the ROW. This includes, but is not limited to, barricades for open trenches, flagmen/women with communication systems for single-lane roads without intervisible turnouts, and attended gates for blasting operations.

i3 The holder shall permit free and unrestricted public access to and upon the ROW for all lawful purposes except for those specific areas designated as restricted by the authorized officer to protect the public, wildlife, livestock, or facilities constructed within the ROW.

i4 Construction-related traffic shall be restricted to routes approved by the authorized officer. New access roads or cross-country vehicle travel will not be permitted unless prior written approval is given by the authorized officer. Authorized roads used by the holder shall be rehabilitated or maintained when construction activities are complete as approved by the authorized officer.

i5 Existing roads and trails on public lands that are blocked as a result of the construction project shall be rerouted or rebuilt as directed by the authorized officer.

i6 Fording of streams and rivers with construction equipment and other motorized vehicles shall be permitted only with prior approval of the authorized officer. Temporary bridges, culverts, or other structures shall be used whenever stream crossings are required, unless otherwise approved of in writing by the authorized officer. Rivers, streams, and impoundments shall be promptly cleared of all pilings, debris, or other obstructions placed therein or caused by construction activities.

i7 If “cross country” access is necessary, clearing vegetation or grading a roadbed will be avoided whenever practicable. All construction and vehicular traffic shall be confined to the ROW or designated access routes, roads, or trails unless otherwise authorized in writing by the authorized officer. All temporary roads used for construction shall be rehabilitated after construction is completed. Only one road or access route will be permitted to each site requiring access.

J. PIPELINES

j1 The stipulation number Aj1" has been deleted from the handbook.

j2 The holder shall inform the authorized officer with 48 hours of any accidents on Federal lands that require reporting to the Department of Transportation as required by 49 CFR Part 195.

j3 The holder is prohibited from discharging oil or other pollutants into or upon the navigable waters of the U., adjoining shorelines, or the waters of the contiguous zone in violation of Section 311 of the CWA as amended, 33 U.S.C. 1321, and the regulations issued thereunder, or applicable laws of the State(s) of [user entry] and regulations issued thereunder. Holder shall give immediate notice of any such discharge to the authorized officer and such other Federal and State officials as are required by law to be given such notice.

j4 Prior to any discharge, hydrostatic testing water will be tested and processed, if necessary, to ensure that the water meets local, State, or Federal water quality standards. Prior to discharge of hydrostatic testing water from the pipeline, the holder shall design and install a suitable energy dissipater at the outlets, and design and install suitable channel protection structures necessary to ensure that there will be no erosion or scouring of natural channels within the affected watershed as a result of such discharge. The holder will be held responsible for any erosion or scouring resulting from such discharge. Sandbags, rock, or other materials or objects installed shall be removed from the site upon completion of hydrostatic testing.

j5 The pipelines may be laid above ground from station [user entry] to station [user entry] and no blading shall be allowed between these stations.

K. POWERLINES

k1 Unless otherwise agreed to by the authorized officer in writing, powerlines shall be constructed in accordance to standards outlined in "Suggested Practices for Raptor Protection on Powerlines," Raptor Research Foundation, Inc., 1981. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication are "eagle safe." Such proof shall be provided by the raptor expert approved by the authorized officer. The BLM reserves the right to require modifications or additions to all powerline structures placed on this ROW, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the U.S.

k2 The holder shall coordinate with the authorized officer on the design and color of the poles and transmission lines to achieve the minimum practicable visual impacts.

k3 The holder shall use nonreflecting lines and conductors at the following locations: [user entry].

L. REHABILITATION

l1 The holder shall recontour disturbed areas or designated sections of the ROW by grading to restore the site to approximately the original contour of the ground as determined by the authorized officer.

l2 The holder shall recontour the disturbed area and obliterate all earthwork by removing embankments, backfilling excavations, and grading to re-establish the approximate original contours of the land in the ROW.

l3 The holder shall evenly spread the excess soil excavated from pole holes within the ROW and in the immediate vicinity of the pole structure.

l4 The holder shall restore drainages, to the greatest extent possible, to the original bank configuration, stream bottom width, and channel gradient. Loose soil, fill, and culverts shall be removed from drainage channels as directed by the authorized officer.

l5 The holder shall uniformly spread topsoil over all unoccupied disturbed areas (outside the ditch line, fence line, work area). Spreading shall not be done when the ground or topsoil is frozen or wet.

l6 The holder shall construct waterbars on all disturbed areas to the spacing and cross sections specified by the authorized officer. Waterbars are to be constructed to: (1) simulate the imaginary contour lines of the slope (ideally with a grade of one or two percent); (2) drain away from the disturbed area; and (3) begin and end in vegetation or rock whenever possible.

l7 All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for this [user entry] is [user entry].

l8 Upon completion of construction, the holder shall post as directed by the authorized officer, the BLM serial number assigned to this ROW grant at the following location(s): [user entry].

l9 The existing subgrade shall be scarified to its full width and to a depth sufficient to eliminate surface irregularities. The scarified surface shall then be bladed and shaped to the lines, grades, dimensions, and typical cross section shown on the plans.

l10 As directed by the authorized officer, all road segments shall be winterized by providing a well-drained roadway by water barring, maintaining drainage, and any additional measures necessary to minimize erosion and other damage to the roadway or the surrounding public lands.

M. SEED MIX/MULCH

m1 The holder shall prepare a seedbed by (scarifying the disturbed area) (distributing topsoil uniformly) (disking the topsoil) as directed by the authorized officer.

NOTE: select the text with parentheses as appropriate, delete the other text, the parentheses, and this note.

m2 The holder shall mulch disturbed areas designated by the authorized officer. The type of mulch shall meet one of the following requirements:

(a) Straw used for mulching shall be from oats, wheat, rye, or other approved grain crops, and free from noxious weeds or other objectionable material as determined by the

authorized officer. Straw mulch shall be suitable for placing with mulch blower equipment.

(b) Hay shall be of approved herbaceous mowings, free form noxious weeds or other objectionable material as determined by the authorized officer. Hay shall be suitable for placing with mulch blower equipment.

(c) Wood cellulose fiber shall be natural or cooked wood cellulose fiber, shall disperse readily in water, and shall be nontoxic. The homogeneous slurry or mixture shall be capable of application with power spray equipment. A colored dye that is non-injurious to plant growth may be used when specified. Wood cellulose fiber shall be packaged in new, labeled containers.

m3 The holder shall seed all disturbed areas using an agreed upon method suitable for the location. Seeding shall be repeated if a satisfactory stand is not obtained as determined by the authorized officer upon evaluation after the [user entry] growing season.

m4 The holder shall seed all disturbed areas with the seed mixture(s) listed below. The seed mixture(s) shall be planted in the amounts specified in pounds of pure live seed (PLS) per acre. There shall be no primary of secondary noxious weed seed in the seed mixture. Seed shall be tested and the viability testing of seed shall be done in accordance with State law(s) and within [user entry] months prior to purchase. Commercial seed shall be either certified or registered seed. The seed mixture container shall be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop to the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre noted below are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of the [user entry] growing season after seeding. The authorized officer is to be notified of the minimum of [user-entry] days prior to seeding of the project.

Seed Mixture

Species of seed	Variety	Pounds PLS/acre
[user entry]	[user entry]	[user entry]

Total [user entry] lbs/acre PLS

Pure Live Seed (PLS) formula: % of purity of seed mixture times % germination of seed mixture = portion of seed mixture that is PLS.

N. FIRE

n1 The holder shall prepare a fire prevention and suppression plan, that shall be reviewed, modified, and approved, as appropriate, by the authorized officer. The holder shall take into account such measures for prevention and suppression of fire on the ROW and other public land used or traversed by the holder in connection with operations of the ROW. Project personnel shall be instructed as to individual responsibility in implementation of the plan.

n2 During construction, operation, maintenance, and termination of the ROW, during the period from [user entry] to [user entry], vehicles, gas-powered equipment, and flues shall be equipped with spark arrestors approved by the authorized officer.

n3 During conditions of extreme fire danger, operations shall be limited or suspended in specific areas, or additional measures may be required by the authorized officer.

n4 The holder shall maintain a fire watch with fire-fighting equipment during construction at the following locations: [user entry] as required by the authorized officer.

n5 When requested by the authorized officer, the holder shall make his equipment already at the site with operators, temporarily available for fighting fires in the vicinity of the project. Payment for such services will be made at rates determined by the authorized officer.

P. ROW MAINTENANCE

p1 The holder shall be liable for damage or injury to the U.S. to the extent provided by 43 CFR Sec. 2803.1-4. The holder shall be held to a standard of strict liability for damage or injury to the U.S. resulting from fire or soil movement (including landslides and slumps as well as wind and water-caused movement of particles) caused or substantially aggravated by any of the following within the ROW or permit area:

(1) Activities of the holder, including but not limited to construction, operation, maintenance, and termination of the facility.

(2) Activities of other parties including, but not limited to:

(a) Land clearing and logging;

(b) Earth-disturbing and earth-moving work;

(c) Blasting; and

(d) Vandalism and sabotage.

The maximum limitation for such strict liability damages shall not exceed $[user entry] for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from the negligent acts or omissions of the U.S.

p2 The holder shall be liable for damage or injury to the U.S. to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the U.S. resulting from fire or soil movement (including landslides and slumps as well as wind and water-caused movement of particles) caused or substantially aggravated by any of the following within the ROW or permit area:

(1) Activities of the holder including, but not limited to, construction, operation, maintenance, and termination of the facility.

(2) Activities of other parties including, but not limited to:

(a) Land clearing and logging;

(b) Earth-disturbing and earth-moving work;

(c) Blasting;

(d) Vandalism and sabotage; and

(e) Acts of God.

The maximum limitation for such strict liability damages shall not exceed $[user entry] for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the U.S.

p3 The holder shall provide a bond in the amount of $[user entry] to be maintained until restoration of disturbed areas and other requirements relative to the construction phase of the project have been accepted by the authorized officer. Upon completion, or partial completion of these construction related requirements, the authorized officer may terminate or reduce the amount of the bond.

p4 A bond, acceptable to the authorized officer, shall be furnished by the holder by [user entry] or at such earlier date as may be specified by the authorized officer. The amount of this bond shall be determined by the authorized officer. This bond must be maintained in effect until removal of improvements and restoration of the ROW have been accepted by the authorized officer.

p5 The holder agrees that all monies deposited with the authorized officer as security for holder's performance of the terms and conditions of this grant may, upon failure on the holder's part to fulfill any of the requirements herein set forth or made a part hereof, be retained by the U.S. to be applied as far as may be needed to the satisfaction of the holder's obligations assumed hereunder, without prejudice whatever to any other rights and remedies of the U.S.

p6 Should the bond delivered under this grant become unsatisfactory to the authorized officer, the holder shall, within 30 days of demand, furnish a new bond.

p7 The holder shall provide a bond, acceptable to the authorized officer, in the amount of $[user entry], to be maintained until the electronic operations of the holder and/or the holder's sub-lessee(s) have been accepted by the authorized officer. Said period of bond maintenance shall not be less than six (6) months following the completion of construction and continuous operation of the holder's electronic equipment authorized by this grant or following the initiation of continuous operation of the electronic equipment of holder's sub-lessee(s) authorized by this grant or future amendments to this grant. Upon acceptance of the electronic operations of the holder or the holder's sub-lessee(s), the authorized officer may terminate or reduce the amount of the bond. Prior to approving an amendment of this grant to authorize the addition of a new sub-lessee or to change the authorized equipment or technical operating parameters of the holder of existing sub-lessee(s), the authorized officer shall require the holder to provide a similar bond in the amount of $[user entry] to be maintained as specified above. The bond shall be available to cure interference problems to existing site users when, in the judgment of the authorized officer, the operation of the holder's or sub-lessee's facility and/or equipment is the direct cause of that interference.

Q. BONDS/LIABILITY

q1 If snow removal from the road is undertaken, equipment for snow removal operations shall be equipped with shoes to keep the blade [user entry] inches off the road surface. Holder shall take special precautions where the surface of the ground is uneven and at drainage crossings to ensure that equipment blades do not destroy vegetation.

q2 Holder shall maintain the ROW in a safe, usable condition, as directed by the authorized officer. (A regular maintenance program shall include, but is not limited to, blading, ditching, culvert installation, and surfacing.)

q3 Except ROW expressly authorizing a road after construction of the facility is completed, the holder shall not use the ROW as a road for purposes other than routine maintenance as determined necessary by the authorized officer in consultation with the holder.

R. HAZARDOUS WASTE/LIABILITY/WASTE DISPOSAL

r1 Construction sites shall be maintained in a sanitary condition at all times; waste materials at those sites shall be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.

r2 A litter policing program shall be implemented by the holder, and approved of in writing by the authorized officer, which covers all roads and sites associated with the ROW.

r3 The holder(s) shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder(s) shall comply with the Toxic

Substances Control Act of 1976, as amended (15 U.S.C. 2601, et seq.) with regard to any toxic substances that are used, generated by, or stored on the ROW or on facilities authorized under this ROW grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by CERCLA of 1980, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

r4 The holder of ROW No. [user entry] agrees to indemnify the U.S. against any liability arising form the release of any hazardous substance or hazardous waste (as these terms are defined in the CERCLA of 1980, 42 U.S.C. 9601 et seq. or the Resource Conservation and Recovery Act of 1976, 42 U.S.C. 6901 et seq.) on the ROW (unless the release or threatened release is wholly unrelated to the ROW holder's activity on the ROW). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

S. OIL AND GAS BOUNDARY ADJUSTMENT/ TERMINATION

s1 Boundary adjustments in Oil and Gas [user entry (lease or unit number)] shall automatically amend this ROW to include that portion of the facility no longer contained within the above described [user entry]. In the event of an automatic amendment to this ROW grant, the prior on-lease/unit conditions of approval of this facility will not be affected even though they would now apply to facilities outside of the lease/unit as a result of a boundary adjustment. Rental fees, if appropriate shall be recalculated based on the conditions of this grant and the regulations in effect at the time of an automatic amendment.

s2 Prior to termination of the ROW, the holder shall contact the authorized officer to arrange a pre-termination conference. This conference will be held to review the termination provisions of the grant.

s3 [user entry, period of time] prior to termination of the ROW, the holder shall contact the authorized officer to arrange a joint inspection of the ROW. This inspection will be held to agree to an acceptable termination (and rehabilitation) plan. This plan shall include, but is not limited to, removal of facilities, drainage structures, surface material, recontouring, topsoiling, or seeding. The authorized officer must approve the plan in writing prior to the holder's commencement of any termination activities.

T. CONTINGENCY PLANS/SPILLS

t1 The holder shall submit its contingency plan to the authorized officer prior to scheduled start up.

a. Include provisions for oil or other pollutant spill control.

b. The agencies responsible for contingency plans in [user entry] shall be among the first to be notified in the event of any pipeline system failure resulting in a spill of oil or other pollutant.

c. Provide for restoration of the affected resource.

d. Provide that the authorized officer shall approve any materials or devices used for oil spill control and any disposal sites or techniques selected to handle oil, matter, or other pollutants.

e. Include separate and specific techniques and schedules for cleanup of spills of oil or other pollutants on land or waters.

t2 If during any phase of the construction, operation, or termination of the pipeline or related facilities, any oil or other pollutant should be discharged from the pipeline system, or from containers or vehicles impacting Federal lands, the control and total removal, disposal, and cleanup of such oil or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of holder to control, cleanup, or dispose of such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting therefrom, the authorized officer may take such measures as he deems necessary to control and cleanup the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the authorized officer shall not relieve the holder of any liability or responsibility.

U. ROAD MAINTENANCE AGREEMENTS

(Numbers u1 and u2 intentionally omitted.)

u3 For the purpose of determining joint maintenance responsibilities, the holder shall make road use plans known to all other authorized users of the road. Holder shall provide the authorized officer, within 30 days from the date of the grant, with the names and addresses of all parties notified, dates of notification, and method of notification. Failure of the holder to share proportionate maintenance costs on the common use access road in dollars, equipment, materials, or manpower with other authorized users may be adequate grounds to terminate the ROW grant. The determination as to whether this has occurred and the decision to terminate shall rest with the authorized officer. Upon request, the authorized officer shall be provided with copies of any maintenance agreement entered into.

V. COMMUNICATION SITES

v1 The holder and the holder's sub-grantees shall operate within the parameters of the [user entry] Site Management Plan.

v2 The U.S. will not be held liable for any damage to the communication facility caused by the general public or as a result of fire, wind, or other natural disasters or as a result of silvicultural practices, timber harvesting operations, or other actions stemming from the normal land management activities of the BLM.

v3 The ROW herein granted is conditioned upon the submission to the authorized officer of a copy of an approved license and/or renewal license granted by the Federal Communications Commission (FCC) or Interdepartmental Radio Advisory Committee (IRAC) for each electronic station installation authorized by this grant or future amendment to this grant. A copy of the FCC or IRAC authorization shall be submitted with 90 days of issuance of this grant or within 90 days of issuance of this grant or within 90 days following approval of an amendment to this grant. Failure to submit the FCC or IRAC authorization copy within the time specified shall be grounds for termination of this grant or cancellation of an amendment to this grant. The authorized officer may grant an extension of up to 90 days, if requested in writing by the holder.

v4 The holder shall not allow the operation of any electronic equipment in the building or on the site unless and until the user has obtained a license from the Federal Communications Commission or the Interdepartmental Radio Advisory Committee.

v5 Each electronic type station installation authorized by this grant shall be operated in conformity with the requirements of the FCC or, in the case of Federal government installation operations, in accordance with the IIRAC agreements.

v6 The holder may authorize or sub-grant to third parties the right to use the holder's facilities upon a filing of a grant amendment application and a finding by the authorized officer that the amendment is acceptable. Third party sub-grant holders shall be required to comply with the requirements as presented herein as well as those stipulations imposed by the authorized officer upon approval of the grant amendment.

v7 The holder shall not authorize or sub-grant the right to use the holder's facilities to any third party who would operate at an effective radiated power of 1000 watts or greater unless and until such high power third party user has obtained a separate ROW grant from the authorized officer.

v8 The holder agrees not to install or allow the installation of any other radio electronic type equipment not specified in this grant or amendment to this grant on or within the structure or on the premises authorized and covered by this grant, without advance notification and written approval of the authorized officer.

v9 The holder shall not install nor allow the installation of any other organization's electronic equipment in the holder's building, or attachment to the holder's antenna support structures, without the new organization obtaining a separate right-of-way grant from the BLM for the joint occupancy of the said facility.

v10 The holder shall notify the authorized officer of any intent to locate additional users within or upon their existing facilities, not less than 45 days prior to occupancy of holder's facilities. Information that must be included is:

(1) Name, current address, and phone number of the third party.

(2) Expected date of occupancy.

(3) A photo or sketch illustrating the type of antenna to be installed, as well as any other planned physical changes to the exterior facilities operated by the holder. If the proposed use is not specified in the original ROW grant, an amendment will be required.

v11 The holder shall furnish a listing of, or other information pertaining to, all occupants of the facility upon request of the authorized officer.

v12 No less that 45 days prior to occupancy of the holder's facility, the holder shall notify existing users within a one-mile radius that the holder intends to accommodate a new communication user in its facility. Existing users can then file any comments pertaining to potential frequency or electromagnetic problems, with the FCC, 1919 M Street, N. W., Washington, D.C. 20554, with a copy to the authorized officer.

v13 The holder shall accept all applications for compatible uses of the facility on a first-come first-served basis. If an applicant agrees to comply with all the terms and conditions for use of the site contained herein, obtains a FCC or IRAC authorization, and there is space available, the holder may not refuse to enter into a use agreement with applicant.

v14 The holder may place no restriction on what brand of equipment is installed on the site so long as it conforms to industry standards, as determined by the authorized officer.

v15 The holder shall place no unreasonable restriction on persons who service units belonging to users of the building, providing the servicing personnel are qualified and licensed to service the type units involved.

v16 At any time a government agency wishes to make use of the facility, its application shall become the first application in line for available space.

v17 Utility and service facilities constructed by the holder, including but not limited to power and telephone lines, roads, and fences, within the reasonable capacity of such facilities, shall be available for use by the U.S. for construction and operation of electronic facilities installed by the U.S. without any contribution for construction costs of such facilities. The U.S. agrees to pay the rental as determined by a mutually acceptable method, for any use made of buildings, antenna tower(s), or other structures belonging to the holder.

v18 The BLM reserves the right to authorize joint use by other electronic communication users of the site, together with the roads and the power, telephone, and other auxiliary utility service lines installed and operated by the holder, upon payment by such users to the holder of a just and equitable portion of the costs of installation, maintenance, and operation; provided that such joint use will conform to sound engineering practices.

v19 Federal government agencies shall be provided 20 percent of building space at no charge for the installation of communication facilities. Federal agencies shall be required to enter into available combining systems whenever technically feasible, and the cost of combiner ports shall be paid by the Federal government at the same cost as paid by other users.

v20 Twenty percent of the microwave antenna capacity of the tower (based on wind loading) shall be available for Federal government use. If the government has not installed microwave equipment at the time only 20 percent of tower capacity remains, the holder may allocate remaining capacity to customers.

v21 The holder shall make a reasonable and uniform charge for building and tower space, services rendered, and equipment to all users of the facility.

v22 The holder shall upon request furnish the authorized officer a current price schedule for all services provided by said holder to other users, both to such other users using the equipment owned by the holder and other users using their own equipment.

v23 The holder will reduce to writing all agreements with authorized third party users of the facilities covered by this grant, specifying therein, as a separate item, the rental and service charge for the use of said facilities, and will furnish a true copy of each such agreement and changes therein to the authorized officer.

v24 The holder is permitted to use, without charge, up to three (3) rack spaces so long as the equipment is for the sole benefit of the holder. Any additional use by the holder or authorized third parties shall require the assessment of a rental charge as specified in the pricing schedule. Such charges shall be included as part of the gross receipts.

v25 The holder shall follow generally accepted accounting principles in recording financial transactions and reporting results to the authorized officer. Holder shall maintain suitable systems of internal control to ensure the recording of all revenue, in the accounts and reports. When requested by the authorized officer, the holder, at holder's expense, shall have its accounting records and reports audited by a public accountant acceptable to the authorized officer and shall furnish the authorized officer a complete copy of the accountant's report.

v26 The holder shall at all times operate its radio-electronic equipment in such a manner so as not to cause interference with radio-electronic operations of existing users in the vicinity. If such interference results from holder's operations, holder will promptly, at its own expense, modify the equipment and operations, or shut down if necessary to eliminate or reduce the interference to the satisfaction of the FCC and/or the authorized officer.

v27 It will be the responsibility of the holder to ascertain whether existing facilities on the same or adjoining sites will adversely affect the proposed operations. Holder will accept operations, i.e., frequencies, emissions, power output, radiation fields, antenna arrays, etc., of existing facilities on the same or adjoining sites, provided such operations are consistent with the regulations of the FCC if a non-Federal government use, and the Standards of the IRAC if a Federal government use.

v28 The holder shall take measures necessary to eliminate interference to other site users caused by holder's sub-lessee(s). If the holder does not eliminate such interference within 10 days of receipt of notice from the authorized officer, the operations of the sub-lessee causing the interference, as determined by the authorized officer, shall be terminated by the holder.

v29 Buildings shall not exceed [user entry] feet in height, including roof.

v30 Fences not directly related to the security of the telecommunication equipment or structures are not permitted. Any fencing material shall be approved, prior to installation, by the authorized officer. Metallic fencing shall be vinyl clad and grounded to prevent electrical interference. Any fencing material shall be neutral medium gray or color blended to match the building and surrounding environment.

v31 Antenna support structures (towers) shall be designed and certified by a Professional Engineer registered in the State of [user entry].

v32 The antenna support structures (towers) shall be galvanized steel. The tower(s) shall reflect uniformity of design a materials for the entire site. Antenna tower(s) shall be jointly used when electronically compatible. If the location of the tower (s) and guy wires will create conflicts with ground personnel, vehicles, and equipment, or any other safety hazards, tower(s) shall be self-supporting.

v33 All towers shall meet Electronics Industries Associates Standard RS-222-C, *Structural Standards for Steel Antenna Towers*.

v34 All installations, antenna supports, etc., shall be constructed and maintained in a neat and safe condition in accordance with good engineering practices as accepted by industry and applicable laws. Antenna supports shall conform to the installation specifications of the tower manufacturer. Any variance from these standards shall be allowed only to the extent required because of local terrain or obstructions at the site, and all variances shall conform to good engineering practice.

v35 All metallic structural materials shall be galvanized, plated, or coated. Dissimilar metals will not be placed in contact with each other in such a manner that could create a galvanic junction.

v36 Location and height of tower(s) and location of antennas on tower(s) shall not be changed after the initial installation and tests without the approval of the authorized officer. The tower height(s) shall not exceed [user entry] feet.

v37 Combining electronic features are required where technically feasible to minimize apparent overall antenna mass and height.

v38 Adequate ventilation shall be provided for the protection of personnel and to prevent the accumulation of explosive gasses and heated stagnant air. Where feasible, maximum protection against dust is recommended. If forced air ventilation systems are used, they shall be equipped with removable filters for servicing.

v39 All structures shall meet the requirements of the latest codes governing designs of facilities as outlined in the Uniform Building Codes. All structures shall be designed to meet minimum loads for a wind velocity of [user entry].

v40 All electric facilities, equipment, and their installation shall conform to the current National Electrical Safety Code and applicable laws and all regulations.

v41 Installations shall include an effective lightning ground in accordance with the "cone of protection" theory. All electrical outlets shall be of the three-conductor grounding receptacle type. All electrical or electronic equipment cabinets shall be properly connected to the system ground. Structures shall be designed for maximum lightning protection through bonding and a grounding system.

v42 Standards and specifications for raceways, switching, grounding, wiring methods, and materials shall be equivalent to or greater than those issued by the National Fire Protection Association in its most current National Electrical code.

v43 The holder shall join the [user entry] Users Association and remain a member in good standing. Within [user entry] days from the effective date of this grant, the holder shall provide the authorized officer with evidence of membership. Failure of the holder to join the [user entry] Users Association and remain a member in good standing shall constitute sufficient grounds for termination of this ROW grant.

v44 At such future time as a Users Association for this communication site is formed, the holder shall join the Users Association and remain a member in good standing. Within [user entry] days of the creation of such Users Association, the holder shall provide the authorized officer with evidence of membership. Failure of the holder to join the Users Association and remain a member in good standing shall constitute sufficient grounds for termination of this ROW grant.

v45 The holder shall not implement or allow a sub-grantee to implement any changes in or additions to the authorized operating frequencies, types of emission, band widths, radio frequency power outputs, class of service, types of antenna, or named FCC licensees without providing advance notification to, and receiving written approval from, the authorized officer.

v46 The holder may not increase the effective radiated power of [user entry] KW without first requesting an amendment of this grant and obtaining written approval from the authorized officer.

v47 Copies of the amended FCC license or IRAC frequency assignment must be filed with the authorized officer before modification of previously authorized facilities will be approved.

v48 Construction of the facility must be complete and the facility operational within [user entry] months from the effective date of this grant unless an extension is approved in writing by the authorized officer prior to the end of the [user entry] month period.

v49 Holder shall, within 30 days following completion of the facility, submit proof of construction. Said proof shall include "as built" drawings of site construction, location of building, tower, roads, utility lines, and an "as built" drawing of the building showing all changes from the approved design. Final approval and occupancy will not be allowed until these drawings are approved by the authorized officer.

v50 Holder shall file, within 30 days of completion of construction and before proof-of-construction is approved, certification by a Professional Engineer registered in the State of [user entry], that the facilities are constructed in conformance with approved design.

v51 This ROW shall terminate 60 days after expiration or cancellation of the FCC license or IRAC radio frequency assignment, unless renewal is obtained within this period and a copy of such renewal is furnished to the authorized officer.

v52 The following clause must be made a part of every sublease or use agreement associated with this grant.

> In the event of termination of this ROW grant, sub-lessee shall, at the option of the BLM authorized officer, either transfer to the next BLM designated holder as lessee or apply for a ROW in his/her own name.

v53 In the event the grant is terminated for any cause, the holder agrees that, if the authorized officer so elects, holder will convey by quitclaim deed all improvements on the site necessary to operate the multi-user facility (other than equipment on site used solely by the holder) to the next holder authorized by the BLM, upon payment of fair market value as determined by the BLM appraisal for the improvements on the date of termination

W. DAMS AND RESERVOIRS

w1 The dam and reservoir shall be designed by an engineer licensed in the State of [user entry] with demonstrable experience in dam design.

w2 The holder shall submit, for the authorized officer's review and approval, designs and plans approved by the [user entry] State Engineer (or other appropriate state authority) prior to beginning construction or other surface disturbing activity. The authorized officer shall issue a Notice to Proceed (BLM Form 2800-15) upon approval of the design and plans.

NOTE: Edit the text in parentheses as appropriate and delete this note.

w3 Within [user entry] days after receipt of the authorized officer's written notification of damage or defects found in the structure or related facilities, the holder will restore the facility to the originally constructed condition, using materials of equal or superior quality to those used in the original construction.

w4 Within 30 days of completion, the holder will submit to the authorized officer as-built drawings and a certification of construction verifying that the facility has been constructed (and tested) in accordance with the design, plans, specifications, and applicable laws and regulations.

w5 Should the holder fail to perform the required maintenance or repair within [user entry] days of receipt of the authorized officer's written notification to do so, BLM may perform the required maintenance or repair, or at the discretion of the authorized officer, remove the facility, at the holder's expense, including the administrative costs to BLM to effect any such action

w6 The holder shall provide a bond in the amount of [user entry] prior to issuance of the grant or at such later time as the authorized officer deems necessary to ensure the proper maintenance of the facility.

w7 The holder shall prepare an Emergency Action Plan in accordance with BLM standards for structures with a "High" or "Significant" hazard classification. The [user entry] State Engineer (or other appropriate state authority) will determine the hazard classification following an inspection of the downstream potential for property damage and/or loss of life.

NOTE: Edit the text within parentheses as appropriate and delete this note.

w8 The road proposed as part of this authorization shall be constructed and maintained in accordance with BLM standards prescribed for a [user entry] type road.

w9 The U.S., its officers and employees shall be held harmless from and indemnified against any damage, injury, or liability resulting from the construction, operation, or maintenance of the dam and reservoir being authorized by this ROW grant; including, but not limited to, any liability which the U.S. may have as owner of the land which is the subject of the ROW grant.

X. AIR QUALITY

x1 The holder shall submit for the authorized officer's review a technical report addressing criteria and methodology of how the proposed facility will be located and designed to meet applicable Federal, State, and local air quality standards.

x2 The holder shall meet Federal, State, and local emission standards for air quality.

x3 The holder shall furnish and apply water or other means satisfactory to the authorized officer for dust control.

LANDS PROPOSED FOR DISPOSAL, ALTERNATIVES A–E

ALTERNATIVE A

Gila and Salt River Meridian, Arizona

T. 1 N., R. 10 W.,
sec. 13, SW¼, N½SE¼.

T. 2 N., R. 10 W.,
sec. 2, lots 1, 2, 3, 4, S½N½, and S½;
sec. 11, all.

T. 4 S., R. 10 W.,
sec. 18, lots 1 (subsurface estate), 2 (subsurface estate), E½NW¼ (subsurface estate).

T. 5 S., R. 10 W.,
sec. 1, lots 1, 2, S½NE¼;
sec. 11, N½NW¼;
sec. 18, lot 1, S½NE¼, E½NW¼, NE¼SE¼.

T. 5 S., R. 11 W.,
sec. 33, N½SE¼.

T. 6 S., R. 11 W.,
sec. 1, E½W½SW¼SE¼, E½SW¼SE¼, SE¼SE¼;
sec. 10, N½NW¼;
sec. 23, NE¼NE¼SE¼, W½SE¼;
sec. 24, S½NW¼;
sec. 25, S½ (subsurface estate);
sec. 27, E½NE¼, SE¼;
sec. 29, W½NE¼NW¼, W½NW¼, SE¼NW¼.

T. 7 S., R. 11 W.,
sec. 6, lots 1 through 7, inclusive, S½NE¼, SE¼NW¼, E½SW¼;
sec. 7, lots 1, 2, 3, NE¼, E½NW¼, NE¼SW¼, NW¼SE¼, W½NE¼SE¼;
sec. 8, NW¼;
sec. 10, S½SW¼;
sec. 15, SE¼;
sec. 27, all (subsurface estate);
sec. 28, N½N½ (subsurface estate), SE¼ (subsurface estate);
sec. 30, E½SW¼;
sec. 31, lots 3, 4, E½SW¼, E½SE¼.

T. 3 N., R. 12 W.,
sec. 27, W½.

T. 6 S., R. 12 W.,
sec. 4, lots 3, 4, S½NW¼;
sec. 5, lots 1, 2, S½NE¼;
sec. 9, NW¼;
sec. 10, N½.

T. 7 S., R. 12 W.,
sec. 4, NW¼SW¼SE¼;
sec. 5, lot 4, N½SW¼NW¼, N½NW¼SW¼, E½SE¼NW¼SW¼, NE¼SW¼, N½SE¼SW¼, SW¼SE¼SW¼, NE¼SE¼, E½NW¼SE¼, E½W½NW¼SE¼, NE¼SW¼SE¼, NW¼SE¼SE¼;
sec. 6, SE¼NW¼, NE¼SW¼;
sec. 25, W½SE¼;
sec. 33, SE¼NE¼SE¼, E½SE¼SE¼, E½W½SE¼SE¼;
sec. 34, W½NE¼NE¼, NW¼NE¼, S½N½, S½.

T. 6 S., R. 13 W.,
sec. 17, NE¼SW¼, S½SW¼;
sec. 18, SE¼SE¼;
sec. 19, S½SE¼;
sec. 27, N½NW¼;

sec. 28, N½N½

T. 7 S., R. 13 W.,
sec. 1, lot 2, W½NE¼SW¼, SE¼NE¼SW¼, W½SW¼, SE¼SW¼, S½N½SE¼;
sec. 3, lot 1, S½NE¼, SE¼NW¼, S½;
sec. 4, SE¼SW¼, NE¼SE¼, S½SE¼;
sec. 7, lot 4, SE¼SW¼, NE¼SE¼, S½SE¼;
sec. 8, S½NE¼, S½S½;
sec. 9, N½N½NE¼NE¼, W½NE¼, NW¼, W½SW¼, W½E½SW¼.

T. 6 S., R. 14 W.,
sec. 34, S½;
sec. 35, N½, SW¼, NW¼SE¼.

T. 7 S., R. 14 W.,
sec. 3, lots 1, 2, 3, 4, SW¼NE¼, S½NW¼, NW¼SW¼,
sec. 4, lots 1, 2, 3, 4, S½N½, S½;
sec. 5, lots 1, 2, 3, 4, S½N½, N½S½;
sec. 13, All;
sec. 14, SE¼NE¼, S½;
sec. 15, SE¼;
sec. 20, SE¼;
sec. 24, N½NW¼.

T. 8 S., R. 15 W.,
sec. 20, NE¼SW¼, N½SE¼SW¼, E½W½SE¼SE¼SW¼, E½SE¼SE¼SW¼;
sec. 24, W½SE¼;
sec. 29, SW¼.

T. 4 N., R. 19 W.,
sec. 4, SE¼;
sec. 9, N½, SW¼, S½NE¼SE¼, W½SE¼, SE¼SE¼;
sec. 15, E½, N½NW¼, N½S½NW¼, SW¼SW¼NW¼, SE¼SE¼NW¼, SW¼;
sec. 17, All;
sec. 20, N½, SW¼, N½SE¼, SW¼SE¼, N½SE¼SE¼, SW¼SE¼SE¼, S½SE¼SE¼SE¼;

sec. 21, W½NE¼, N½NW¼, SW¼NW¼,
E½SE¼NW¼, SW¼SE¼NW¼;
sec. 22, lot 1, NE¼, E½NW¼, SE¼SE¼;
sec. 23, N½, NE¼SW¼, NW¼SW¼SW¼,
SE¼SW¼SW¼, N½SE¼,
N½S½SE¼, N½SW¼SW¼SE¼,
SE¼SW¼SW¼SE¼, SE¼SE¼SW¼SE¼,
E½SW¼SE¼SE¼, W½SE¼SE¼SE¼;
sec. 26, S½NE¼NE¼NE¼NE¼, W½NE¼NE¼NE¼,
SE¼NE¼NE¼NE¼, E½NW¼NE¼NE¼,
S½NW¼NW¼NE¼NE¼,
SW¼NW¼NE¼NE¼, S½NE¼NE¼,
E½NE¼NW¼NE¼, SW¼NE¼NW¼NE¼,
E½NW¼NW¼NE¼, SW¼NW¼NW¼NE¼,
S½NE¼, S½NE¼NE¼NW¼,
W½NE¼NW¼, SE¼NE¼NW¼, SE¼NW¼;
sec. 28, NW¼SE¼;
sec. 29, W½W½NE¼NE¼, NW¼NE¼,
W½NE¼NW¼, SE¼NE¼NW¼,
NW¼NW¼, S½SW¼.

T. 3 N., R. 22 W.,
sec. 11, lot 7
sec. 24, NW¼NW¼.

T. 9 S., R. 22 W.,
sec. 1, lots 1, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, S½NE¼,
NW¼SE¼;
sec. 17, NE¼NE¼, N½NW¼NE¼,
E½SE¼NW¼NE¼, S½SW¼SE¼NE¼,
SE¼SE¼NE¼.

T. 1 S., R. 23 W.,
sec. 5, lot 8 (part).

T. 8 S., R. 23 W.,
sec. 34, W½NE¼NW¼ (portion), W½NW¼NE¼
(portion);
sec. 35, S½NW¼NE¼NE¼SW¼,
S½NE¼NE¼SW¼, W½NE¼SW¼,
SE¼NE¼SW¼, NW¼SW¼.

T. 9 S., R. 23 W.
sec. 28, lot 2;
sec. 29, lots 2, 3, 4, 5, 6 (portion), 7, 8,
N½SE¼SW¼, SW¼SE¼SW¼;
sec. 33, W½SW¼SW¼SW¼.

T. 8 S., R. 24 W.,
sec. 28, lot 19.

T. 9 S., R. 24 W.,
sec. 8, lot 8.

T. 11 S., R. 25 W.,
sec. 1, lots 3, 4, 5, 11 (portion), 14, and 15,
W½E½SW¼, SE¼NW¼SW¼,
N½NE¼SW¼SW¼;
sec. 11, lot 28;
sec. 12, Block 29, lots 1, 2, and 3;
Block 30, lots 1 to 11, inclusive;
Block 31, lots 1, 2, 3, and 4.

San Bernardino Meridian, California

T. 9 S., R. 21 E.,
sec. 12, lots 1, 2, NE¼.

T. 8 S., R. 22 E.,
sec. 24, lot 4.

T. 9 S., R. 22 E.,
sec. 9, lot 12.

T. 14 S., R. 23 E.,
sec. 1, SE¼NW¼SE¼ (portion).

T. 14 S., R. 23 E.,
sec. 12, NW¼NE¼NE¼ (portion).

ALTERNATIVE B

Gila and Salt River Meridian, Arizona

T. 2 N., R. 10 W.,
sec. 2, lots 1, 2, 3, 4, S½N½, and S½;
sec. 11, all.

T. 4 S., R. 10 W.,
sec. 18, lots 1 (subsurface estate), 2 (subsurface estate), E½NW¼ (subsurface estate).

T. 6 S., R. 11 W.,
sec. 25, S½ (subsurface estate).

T. 7 S., R. 11 W.,
sec. 15, SE¼;
sec. 27, all (subsurface estate);
sec. 28, N½N½ (subsurface estate), SE¼ (subsurface estate);
sec. 30, E½SW¼;
sec. 31, lots 3 and 4, E½SW¼, E½SE¼.

T. 3 N., R. 12 W.,
sec. 27, NW¼.

T. 7 S., R. 12 W.,
sec. 4, NW¼SW¼SE¼.

T. 6 S., R. 13 W.,
sec. 17, NE¼SW¼, S½SW¼;
sec. 18, SE¼SE¼;
sec. 19, S½SE¼.

T. 8 S., R. 15 W.,
sec. 20, NE¼SW¼, N½SE¼SW¼, E½W½SE¼SE¼SW¼, E½SE¼SE¼SW¼;
sec. 24, W½SE¼;
sec. 29, SW¼.

T. 5 N., R. 18 W.,
sec. 7, lots 1, 2, 3, and 4, E½, E½W½;
sec. 18, lots 1, 2, 3, and 4, E½, E½W½;
sec. 19, lots 1, 2, 3, and 4, E½, E½W½;
sec. 30, lots 1, 2, 3, and 4, E½, E½W½;
sec. 31, lots 1, 2, 3, and 4, E½, E½W½.

T. 3 N., R. 19 W.,
sec. 1, lots 1, 2, 3, and 4, S½N½, S½;
sec. 2, lots 1, 2, 3, and 4, S½N½, S½;
sec. 3, lots 1, 2, 3, and 4, S½N½, S½;
sec. 4, lots 1, 2, 3, and 4, S½N½, S½;
sec. 5, lots 1, 2, 3, and 4, S½N½, S½;
sec. 6, lots 1, 2, 3, 4, 5, 6, and 7, S½NE¼, SE¼NW¼, E½SW¼, SE¼.

T. 4 N., R. 19 W.,
sec. 3, lots 1, 2, 3, and 4, S½N½, S½;
sec. 4, lots 1, 2, 3, and 4, S½N½, S½;
sec. 5, lots 1, 2, 3, and 4, S½N½, S½;
sec. 6, lots 1, 2, 3, 4, 5, 6, and 7, S½NE¼, SE¼NW¼, E½SW¼, SE¼;
sec. 7, lots 1, 2, 3, and 4, E½, E½W½;
sec. 8, all;
sec. 9, N½, SW¼, S½NE¼SE¼, W½SE¼, SE¼SE¼;
sec. 10, all;
sec. 11, all;
sec. 12, all;
sec. 13, all;
sec. 14, all;
sec. 15, E½, N½NW¼, N½S½NW¼, SW¼SW¼NW¼, SE¼SE¼NW¼, SW¼;
sec. 17, all;
sec. 18, lots 1, 2, 3, and 4, E½, E½W½;
sec. 19, lots, 1, 2, 3, and 4, E½, E½W½;
sec. 20, N½, SW¼, N½SE¼, SW¼SE¼, N½SE¼SE¼, SW¼SE¼SE¼, S½SE¼SE¼SE¼;
sec. 21, W½NE¼, N½NW¼, SW¼NW¼, E½SE¼NW¼, SW¼SE¼NW¼;
sec. 22, lot 1, NE¼, E½NW¼, SE¼SE¼;
sec. 23, N½, NE¼SW¼, NW¼SW¼SW¼, SE¼SW¼SW¼, N½SE¼, N½S½SE¼, N½SW¼SW¼SE¼, SE¼SW¼SW¼SE¼, SE¼SE¼SW¼SE¼,

E½SW¼SE¼SE¼, W½SE¼SE¼SE¼;
sec. 24, N½, N½SW¼, S½N½SW¼SW¼, S½SW¼SW¼, SE¼SW¼, SE¼;
sec. 25, all;
sec. 26, S½NE¼NE¼NE¼NE¼, W½NE¼NE¼NE¼, SE¼NE¼NE¼NE¼, E½NW¼NE¼NE¼, S½NW¼NW¼NE¼NE¼, SW¼NW¼NE¼NE¼, S½NE¼NE¼, E½NE¼NW¼NE¼, SW¼NE¼NW¼NE¼, E½NW¼NW¼NE¼, SW¼NW¼NW¼NE¼, S½NE¼, S½NE¼NE¼NW¼, W½NE¼NW¼, SE¼NE¼NW¼, SE¼NW¼, S½;
sec. 28, NW¼SE¼;
sec. 29, W½W½NE¼NE¼, NW¼NE¼, W½NE¼NW¼, SE¼NE¼NW¼, NW¼NW¼, S½SW¼;
sec. 30, lots 1, 2, 3, and 4, NE¼, E½W½, W½SE¼, SE¼SE¼;
sec. 31, lots 1, 3, and 4, E½, E½W½;
sec. 32, all;
sec. 33, all;
sec. 34, all;
sec. 35, all;
sec. 36, all.

T. 5 N., R. 19 W.,
sec. 8, all;
sec. 9, all;
sec. 10, all;
sec. 11, all;
sec. 12, all;
sec. 13, all;
sec. 14, all;
sec. 15, all;
sec. 16, all;
sec. 17, all;
sec. 20, all;
sec. 21, all;
sec. 22, all;
sec. 23, all;
sec. 24, all;
sec. 25, all;
sec. 26, all;
sec. 27, all;
sec. 28, all;

sec. 29, all;
sec. 32, all;
sec. 33, all;
sec. 34, all;
sec. 35, all;
sec. 36, all.

T. 8 S., R. 21 W.,
sec. 28, E½, E½W½;
sec. 33, E½, E½NW¼, SW¼NW¼, SW¼.

T. 3 N., R. 22 W.,
sec. 11, lot 7
sec. 24, NW¼NW¼.

T. 9 S., R. 22 W.,
sec. 1, lot 7;
sec. 17, NE¼NE¼, N½NW¼NE¼,
E½SE¼NW¼NE¼, S½SW¼SE¼NE¼,
SE¼SE¼NE¼.

T. 1 S., R. 23 W.,
sec. 5, lot 8 (portion).

T. 8 S., R. 23 W.,
sec. 34, W½NE¼NW¼ (portion), W½NW¼NE¼
(portion);
sec. 35, S½NW¼NE¼NE¼SW¼,
S½NE¼NE¼SW¼, W½NE¼SW¼,
SE¼NE¼SW¼, NW¼SW¼.

T. 9 S., R. 23 W.
sec. 28, lot 2;
sec. 29, lots 2, 3, 4, 5, 6 (portion), 7, 8,
N½SE¼SW¼, SW¼SE¼SW¼;
sec. 33, W½SW¼SW¼SW¼.

T. 8 S., R. 24 W.,
sec. 28, lot 19.

T. 9 S., R. 24 W.,
sec. 8, lot 8.

T. 11 S., R. 24 W.,
sec. 6, lots 7, 8, 9, and N½N½SW¼SW¼.

T. 11 S., R. 25 W.,
sec. 1, lots 3, 4, 5, 11 (portion), 14, and 15,
W½E½SW¼, SE¼NW¼SW¼,
N½NE¼SW¼SW¼;
sec. 11, lot 28;
sec. 12, Block 29, lots 1, 2, and 3;
Block 30, lots 1 to 11, inclusive;
Block 31, lots 1, 2, 3, and 4.

San Bernardino Meridian, California

T. 9 S., R. 21 E.,
sec. 12, lots 1, 2, NE¼.

T. 8 S., R. 22 E.,
sec. 24, lot 4.

T. 9 S., R. 22 E.,
sec. 9, lot 12.

T. 14 S., R. 23 E.,
sec. 1, SE¼NW¼SE¼ (portion).

T. 14 S., R. 23 E.,
sec. 12, NW¼NE¼NE¼ (portion).

ALTERNATIVE C

Gila and Salt River Meridian, Arizona

T. 2 N., R. 10 W.,
sec. 2, lots 1, 2, 3, 4, S½N½, and S½;
sec. 11, all.

T. 4 S., R. 10 W.,
sec. 18, lots 1 (subsurface estate), 2 (subsurface estate), E½NW¼ (subsurface estate).

T. 6 S., R. 11 W.,
sec. 25, S½ (subsurface estate).

T. 7 S., R. 11 W.,
sec. 27, all (subsurface estate);
sec. 28, N½N½ (subsurface estate), SE¼ (subsurface estate);
sec. 30, E½SW¼.

T. 3 N., R. 12 W.,
sec. 27, NW¼.

T. 7 S., R. 12 W.,
sec. 4, NW¼SW¼SE¼.

T. 8 S., R. 15 W.,
sec. 20, NE¼SW¼, N½SE¼SW¼, E½W½SE¼SE¼SW¼, E½SE¼SE¼SW¼;
sec. 24, W½SE¼;
sec. 29, SW¼.

T. 4 N., R. 19 W.,
sec. 4, SE¼;
sec. 8, all;
sec. 9, N½, SW¼, S½NE¼SE¼, W½SE¼, SE¼SE¼;
sec. 10, all;
sec. 11, all;
sec. 14, all;

sec. 15, E½, N½NW¼, N½S½NW¼,
SW¼SW¼NW¼, SE¼SE¼NW¼, SW¼;
sec. 17, all;
sec. 20, N½, SW¼, N½SE¼, SW¼SE¼,
N½SE¼SE¼, SW¼SE¼SE¼,
S½SE¼SE¼SE¼;
sec. 21, W½NE¼, N½NW¼, SW¼NW¼,
E½SE¼NW¼, SW¼SE¼NW¼;
sec. 22, lot 1, NE¼, E½NW¼, SE¼SE¼;
sec. 23, N½, NE¼SW¼, NW¼SW¼SW¼,
SE¼SW¼SW¼, N½SE¼,
N½S½SE¼, N½SW¼SW¼SE¼,
SE¼SW¼SW¼SE¼, SE¼SE¼SW¼SE¼,
E½SW¼SE¼SE¼, W½SE¼SE¼SE¼;
sec. 26, S½NE¼NE¼NE¼NE¼, W½NE¼NE¼NE¼,
SE¼NE¼NE¼NE¼, E½NW¼NE¼NE¼,
S½NW¼NW¼NE¼NE¼,
SW¼NW¼NE¼NE¼, S½NE¼NE¼,
E½NE¼NW¼NE¼, SW¼NE¼NW¼NE¼,
E½NW¼NW¼NE¼, SW¼NW¼NW¼NE¼,
S½NE¼, S½NE¼NE¼NW¼,
W½NE¼NW¼, SE¼NE¼NW¼, SE¼NW¼;
sec. 28, NW¼SE¼
sec. 29, W½W½NE¼NE¼, NW¼NE¼,
W½NE¼NW¼, SE¼NE¼NW¼,
NW¼NW¼, S½SW¼.

T. 9 S., R. 22 W.,
sec. 1, lot 7;
sec. 17, NE¼NE¼, N½NW¼NE¼,
E½SE¼NW¼NE¼, S½SW¼SE¼NE¼,
SE¼SE¼NE¼.

T. 1 S., R. 23 W.,
sec. 5, lot 8 (portion).

T. 8 S., R. 23 W.,
sec. 34, W½NE¼NW¼ (portion), W½NW¼NE¼
(portion);
sec. 35, S½NW¼NE¼NE¼SW¼,
S½NE¼NE¼SW¼, W½NE¼SW¼,
SE¼NE¼SW¼, NW¼SW¼.

T. 9 S., R. 23 W.
sec. 28, lot 2;
sec. 29, lots 2, 3, 4, 5, 6 (portion), 7, 8,
N½SE¼SW¼, SW¼SE¼SW¼;
sec. 33, W½SW¼SW¼SW¼.

T. 8 S., R. 24 W.,
sec. 28, lot 19.

T. 9 S., R. 24 W.,
sec. 8, lot 8.

T. 11 S., R. 24 W.,
sec. 6, lots 7, 8, 9, and N½N½SW¼SW¼.

T. 11 S., R. 25 W.,
sec. 1, lots 3, 4, 5, 11 (portion), 14, and 15,
W½E½SW¼, SE¼NW¼SW¼,
N½NE¼SW¼SW¼;
sec. 11, lot 28;
sec. 12, Block 29, lots 1, 2, and 3;
Block 30, lots 1 to 11, inclusive;
Block 31, lots 1, 2, 3, and 4.

ALTERNATIVE D

Gila and Salt River Meridian, Arizona

T. 2 N., R. 10 W.,
sec. 2, lots 1, 2, 3, 4, S½N½, and S½;
sec. 11, all.

T. 4 S., R. 10 W.,
sec. 18, lots 1 (subsurface estate), 2 (subsurface
estate), E½NW½ (subsurface estate).

T. 6 S., R. 11 W.,
sec. 25, S½ (subsurface estate).

T. 7 S., R. 11 W.,
sec. 15, SE¼;
sec. 27, all (subsurface estate);
sec. 28, N½N½ (subsurface estate), SE¼ (subsurface estate);
sec. 30, E½SW¼;
sec. 31, lots 3, 4, E½SW¼, E½SE¼.

T. 6 S., R. 13 W.,
sec. 17, NE¼SW¼, S½SW¼;
sec. 18, SE¼SE¼;
sec. 19, S½SE¼.

T. 8 S., R. 15 W.,
sec. 20, NE¼SW¼, N½SE¼SW¼, E½W½SE¼SE¼SW¼, E½SE¼SE¼SW¼;
sec. 24, W½SE¼;
sec. 29, SW¼.

T. 4 N., R. 19 W.,
sec. 4, SE¼;
sec. 9, N½, SW¼, S½NE¼SE¼, W½SE¼, SE¼SE¼;
sec. 15, E½, N½NW¼, N½S½NW¼, SW¼SW¼NW¼, SE¼SE¼NW¼, SW¼;
sec. 17, all;
sec. 20, N½, SW¼, N½SE¼, SW¼SE¼, N½SE¼SE¼, SW¼SE¼SE¼, S½SE¼SE¼SE¼;
sec. 21, W½NE¼, N½NW¼, SW¼NW¼, E½SE¼NW¼, SW¼SE¼NW¼;
sec. 22, lot 1, NE¼, E½NW¼, SE¼SE¼;
sec. 23, N½, NE¼SW¼, NW¼SW¼SW¼, SE¼SW¼SW¼, N½SE¼, N½S½SE¼, N½SW¼SW¼SE¼, SE¼SW¼SW¼SE¼, SE¼SE¼SW¼SE¼, E½SW¼SE¼SE¼, W½SE¼SE¼SE¼;
sec. 26, S½NE¼NE¼NE¼NE¼, W½NE¼NE¼NE¼, SE¼NE¼NE¼NE¼, E½NW¼NE¼NE¼, S½NW¼NW¼NE¼NE¼, SW¼NW¼NE¼NE¼, S½NE¼NE¼, E½NE¼NW¼NE¼, SW¼NE¼NW¼NE¼, E½NW¼NW¼NE¼, SW¼NW¼NW¼NE¼, S½NE¼, S½NE¼NE¼NW¼, W½NE¼NW¼, SE¼NE¼NW¼, SE¼NW¼;

sec. 28, NW¼SE¼;
sec. 29, W½W½NE¼NE¼, NW¼NE¼,
W½NE¼NW¼, SE¼NE¼NW¼,
NW¼NW¼, S½SW¼.

T. 9 S., R. 22 W.,
sec. 1, lot 7;
sec. 17, NE¼NE¼, N½NW¼NE¼,
E½SE¼NW¼NE¼, S½SW¼SE¼NE¼,
SE¼SE¼NE¼.

T. 1 S., R. 23 W.,
sec. 5, lot 8 (portion).

T. 8 S., R. 23 W.,
sec. 34, W½NE¼NW¼ (portion), W½NW¼NE¼
(portion);
sec. 35, S½NW¼NE¼NE¼SW¼,
S½NE¼NE¼SW¼, W½NE¼SW¼,
SE¼NE¼SW¼, NW¼SW¼.

T. 9 S., R. 23 W.
sec. 28, lot 2;
sec. 29, lots 2, 3, 4, 5, 6 (portion), 7, 8,
N½SE¼SW¼, SW¼SE¼SW¼;
sec. 33, W½SW¼SW¼SW¼.

T. 8 S., R. 24 W.,
sec. 28, lot 19.

T. 9 S., R. 24 W.,
sec. 8, lot 8.

ALTERNATIVE E

Gila and Salt River Meridian, Arizona

T. 2 N., R. 10 W.,
sec. 2, lots 1, 2, 3, 4, S½N½, and S½;
sec. 11, all.

T. 4 S., R. 10 W.,
sec. 18, lots 1 (subsurface estate), 2 (subsurface estate), E½NW¼ (subsurface estate).

T. 6 S., R. 11 W.,
sec. 25, S½ (subsurface estate).

T. 7 S., R. 11 W.,
sec. 15, SE¼;
sec. 27, all (subsurface estate);
sec. 28, N½N½ (subsurface estate), SE¼ (subsurface estate);
sec. 30, E½SW¼.

T. 3 N., R. 12 W.,
sec. 27, NW¼.

T. 7 S., R. 12 W.,
sec. 4, NW¼SW¼SE¼.

T. 6 S., R. 13 W.,
sec. 17, NE¼SW¼, S½SW¼;
sec. 18, SE¼SE¼;
sec. 19, S½SE¼.

T. 7 S., R. 13 W.,
sec. 3, SE¼SE¼;

T. 8 S., R. 15 W.,
sec. 20, NE¼SW¼, N½SE¼SW¼, E½W½SE¼SE¼SW¼, E½SE¼SE¼SW¼;

sec. 24, W½SE¼;
sec. 29, SW¼.

T. 4 N., R. 19 W.,
sec. 4, SE¼;
sec. 8, all;
sec. 9, N½, SW¼, S½NE¼SE¼, W½SE¼, SE¼SE¼;
sec. 10, all;
sec. 11, all;
sec. 14, all;
sec. 15, E½, N½NW¼, N½S½NW¼, SW¼SW¼NW¼, SE¼SE¼NW¼, SW¼;
sec. 17, all;
sec. 20, N½, SW¼, N½SE¼, SW¼SE¼, N½SE¼SE¼, SW¼SE¼SE¼, S½SE¼SE¼SE¼;
sec. 21, W½NE¼, N½NW¼, SW¼NW¼, E½SE¼NW¼, SW¼SE¼NW¼;
sec. 22, lot 1, NE¼, E½NW¼, SE¼SE¼;
sec. 23, N½, NE¼SW¼, NW¼SW¼SW¼, SE¼SW¼SW¼, N½SE¼, N½S½SE¼, N½SW¼SW¼SE¼, SE¼SW¼SW¼SE¼, SE¼SE¼SW¼SE¼, E½SW¼SE¼SE¼, W½SE¼SE¼SE¼;
sec. 26, S½NE¼NE¼NE¼NE¼, W½NE¼NE¼NE¼, SE¼NE¼NE¼NE¼, E½NW¼NE¼NE¼, S½NW¼NW¼NE¼NE¼, SW¼NW¼NE¼NE¼, S½NE¼NE¼, E½NE¼NW¼NE¼, SW¼NE¼NW¼NE¼, E½NW¼NW¼NE¼, SW¼NW¼NW¼NE¼, S½NE¼, S½NE¼NE¼NW¼, W½NE¼NW¼, SE¼NE¼NW¼, SE¼NW¼;
sec. 28, NW¼SE¼;
sec. 29, W½W½NE¼NE¼, NW¼NE¼, W½NE¼NW¼, SE¼NE¼NW¼, NW¼NW¼, S½SW¼.

T. 3 N., R. 22 W.,
sec. 11, lot 7;
sec. 24, NW¼NW¼.

T. 9 S., R. 22 W.,
sec. 1, lot 7;

sec. 17, NE¼NE¼, N½NW¼NE¼,
E½SE¼NW¼NE¼, S½SW¼SE¼NE¼,
SE¼SE¼NE¼.

T. 1 S., R. 23 W.,
sec. 5, lot 8 (portion).

T. 8 S., R. 23 W.,
sec. 34, W½NE¼NW¼ (portion), W½NW¼NE¼ (portion);
sec. 35, S½NW¼NE¼NE¼SW¼,
S½NE¼NE¼SW¼, W½NE¼SW¼,
SE¼NE¼SW¼, NW¼SW¼.

T. 9 S., R. 23 W.
sec. 28, lot 2;
sec. 29, lots 2, 3, 4, 5, 6 (portion), 7, 8,
N½SE¼SW¼, SW¼SE¼SW¼;
sec. 33, W½SW¼SW¼SW¼.

T. 8 S., R. 24 W.,
sec. 28, lot 19.

T. 9 S., R. 24 W.,
sec. 8, lot 8.

T. 11 S., R. 24 W.,
sec. 6, lots 7, 8, 9, and N½N½SW¼SW¼;
sec. 8, lots 1, 2, 3, 4, E½, E½W½.

T. 11 S., R. 25 W.,
sec. 1, lots 3, 4, 5, 11 (portion), 14, and 15,
W½E½SW¼, SE¼NW¼SW¼,
N½NE¼SW¼SW¼;
sec. 11, lot 28;
sec. 12, Block 29, lots 1, 2, and 3;
Block 30, lots 1 to 11, inclusive;
Block 31, lots 1, 2, 3, and 4.

San Bernardino Meridian, California

T. 9 S., R. 21 E.,
sec. 12, lots 1, 2, NE¼.

T. 8 S., R. 22 E.,
sec. 24, lot 4.

T. 9 S., R. 22 E.,
sec. 9, lot 12.

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REASONABLE FORESEEABLE DEVELOPMENT

1.1 INTRODUCTION

This appendix provides a summary of the exploration history, current lease status, and 20-year projections for Reasonable Foreseeable Development of leasable, locatable, and salable minerals in the planning area. This information is a summary of the data presented in the *Mineral Resource Potential Report* (TetraTech 2005).

Three factors of analysis are considered when making mineral determinations in RMPs: (1) the potential for occurrence and development of mineral resources, (2) immediate and cumulative impacts due to Reasonable Foreseeable Development (RFD) of mineral resources, and (3) the need to apply constraints or restrictions, known as stipulations, to the determination (BLM 1985). The first factor, mineral resource potential, is discussed in the Mineral Resource Potential Report. The second factor, RFD, is discussed in this appendix. The third factor, stipulations, will be analyzed and considered in the RMP.

1.2 LEASABLE MINERALS

1.2.1 OIL AND GAS

BLM-administered land in the planning area identified as having moderate oil and gas potential is 50,210 acres. There are no documented proven reserves in the planning area, and currently only minor leasing interest. No drilling activity has occurred since 1987. The RFD for fluid mineral development estimates that six exploratory wells would be drilled within the next 15 years. An estimated one exploratory well would lead to the discovery and production of one small economic oil and gas field, with an average life of 20 years, resulting in approximately 1,060 acres of disturbance. When evaluating the RFD, it was assumed that fluid mineral development would increase over the 15 years and advances in technology would improve the delineation of potential reservoir targets. A typical oil/gas drilling site is described in the Mineral Resource Potential Report.

1.2.2 CARBON DIOXIDE (CO_2) AND HELIUM (HE)

Areas having moderate CO_2/He potential in the planning area are assumed to be correlative with areas of moderate oil and gas potential. So far, there has been no CO_2/He exploration in the

planning area and no leasing interest. The RFD for CO_2/He development estimates that no oil and gas exploratory wells drilled in the planning area would discover CO_2/He reserves, and no exclusively CO_2/He exploratory wells would be drilled. The evaluation process for the RFD assumed that an increase in oil and gas drilling would result in production tests in two oil and gas exploratory wells without recovery of economic concentrations of CO_2/He. Therefore, there will be no disturbance or impact in the planning area from development of a CO_2/He field.

1.2.3 GEOTHERMAL

A total of four low-temperature geothermal resource regions in the planning area were identified in the Mineral Resource Potential Report. There has been significant development of those geothermal energy resources only for aquaculture. These low-temperature geothermal resources may be used for small-scale space heating and resort spas. Costs to develop low-temperature geothermal resources are prohibitive compared to the potential revenue generation and limited uses of these resources. There are no geothermal energy leases in the planning area, and no indications of future leasing activity. The RFD for geothermal resource development in the planning area expects that no leasing, exploration, or development would occur in the next 15 years. There is no foreseeable disturbance to public lands from geothermal resource development in the planning area in the next 15 years.

1.2.4 COAL

There are no coal deposits reported in the planning area.

1.2.5 SODIUM

There has been no significant development of sodium resources and no indications for future leasing and development activity. The absence of leasing activity for sodium resources in the planning area is likely due to the limited demand for sodium resources and the considerable expense to explore and develop them. The RFD for sodium resource development expects that no leasing, exploration, or development will occur in the planning area in the next 15 years. There is no foreseeable disturbance to public lands from sodium resource development in the planning area in the next 15 years.

1.3 LOCATABLE MINERALS

Mineral districts in the planning area are regions of known occurrence and high potential of locatable metallic and nonmetallic mineral resources. The location of these mineral districts was identified in the *Mineral Resource Potential Report*. There are no active locatable mineral mines currently operating in the planning area (USGS 1999; Phillips, et al. 2002).

The RFD for locatable mineral resources in the planning area indicates that some exploration would occur in the next 15 years with two underground locatable mineral deposits and one placer deposit being developed. The following assumptions were considered when evaluating the RFD for locatable mineral resources in the planning area:

- There would be two new locatable hard rock or lode discoveries (Verdstone and Copperstone) in the next 15 years and one placer gold mineral discovery.
- Each new locatable mineral discovery would include an underground mine, occupy approximately 80 surface acres, and include mining waste rock piles.
- Where applicable, commodity ore would be transported offsite via surface roads for processing.
- The land surface would not be reclaimed during the life of the mine.

There is some foreseeable disturbance due to mining activities on public lands in the planning area in the next 15 years. Activities associated with the two new underground mines would impact up to 160 acres, including placement of waste rock piles. Disturbance of the land surface would require reclamation at the end of the mine life.

1.4 SALABLE MINERALS

1.4.1 AGGREGATE AND STONE

Known occurrences (quarries and pits), prospects, and potential locations for salable mineral resources were identified in the Mineral Resource Potential Report. Most locations are actively used for aggregate for construction operations or in some cases, for decorative stone or rip rap. The following assumptions were considered when evaluating the RFD for salable mineral resources in the planning area:

- The demand for salable minerals would increase during the next 15 years as population increases stimulate construction and infrastructure development.
- Based on past experience and projected future demand, a total of 200 pits would be permitted/contracted in the next 15 years. Approximately 75 of these would be for new sites.
- New quarries or pits would be between five and 10 acres in size.
- New quarry or pit access will require new road construction.

The RFD for salable mineral resources (mineral materials disposal) is 902,000 tons per year, for a total of 13,530,000 tons over 15 years. The total disturbed area over the 15 year planning period would be 1,500 acres with about 300 acres being disturbed during any one time. Disturbance of the land surface would require reclamation at the end of the life of the pits.

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