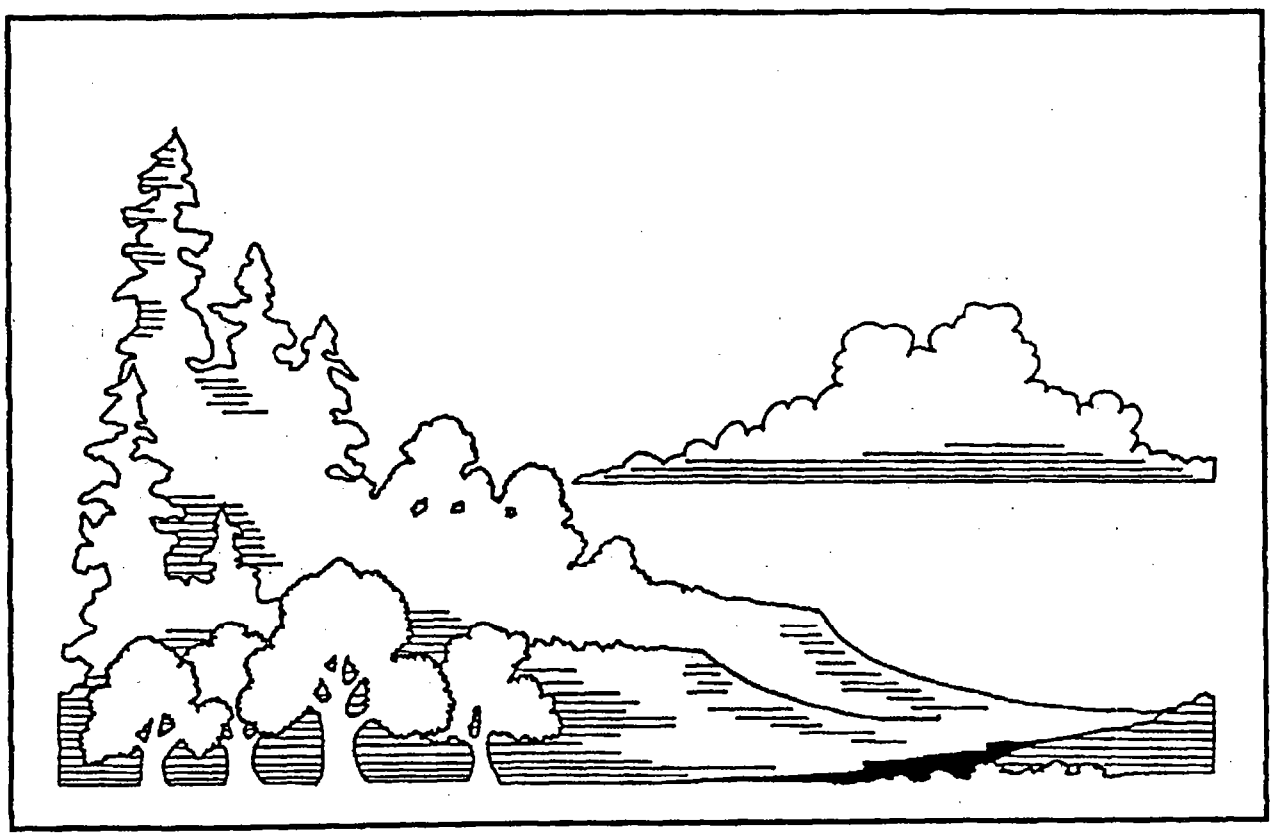
United States Department of the Interior

Bureau of Land Management

Redding Resource Area, California

July 1992

Proposed Redding Resource Management Plan and Final Environmental Impact Statement



BLM Mission Statement

The Bureau of Land Management is responsible for the balanced management of Public 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 takes 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.

BLM-CA-PT-92-010-1600

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Ukiah District Office
555 Leslie Street
Ukiah, California 95482-5599

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
1600/1792

July 1992

Dear Reader:

Enclosed for your review is the Proposed Redding Resource Management Plan and Final Environmental Impact Statement (RMP/FEIS). Throughout the document this RMP/FEIS may be referred to collectively as the Final RMP or RMP. The Draft RMP and EIS was published in March 1991, followed by a 90-day public comment period. Changes based on public comments and agency review have been incorporated into this document.

The Proposed RMP contains the preferred land use management alternatives as well as alternatives that were not selected for implementation. The seven preferred alternatives combined (one for each management area) form the proposed action. The final EIS analyzes the environmental impacts of each alternative. In addition, certain streams were assessed and determinations made for their eligibility for inclusion within the National Wild and Scenic Rivers System.

This RMP is subject to a 30-day protest period and a concurrent review by the Governor of California. Any part of this plan may be protested by any person who has been an active participant in the planning process and has a significant interest that may be adversely affected by the approval of this RMP.

Protests must be postmarked within 30 days after the Environmental Protection Agency publishes the notice of availability for this Final EIS in the Federal Register. Protests must minimally contain the following information: (1) the name, mailing address, telephone number, and interest of the person filing the protest; (2) a statement of the issue or issues being protested; (3) a statement of the part or parts being protested citing pages, paragraphs, maps, etc. of the RMP where practical; (4) a copy of all documents addressing the issue(s) that you submitted during the planning process, or a reference to the date when you discussed the issue(s) for the record; (5) a concise statement of why you believe the BLM State Director's decision is incorrect. Protests must be sent to: Director (760), Bureau of Land Management, 1849 "C" Street NW, Washington, D.C. 20240.

At the end of the 30-day protest period, the proposed plan, excluding any portion under protest, will become final. Approval will be withheld on any portion of the plan under protest until final action has been completed on such protest.

Thank you for your concern and interest in the management of our public land.

Sincerely,

David E. Howell

David E. Howell
District Manager

PROPOSED RESOURCE MANAGEMENT PLAN

and

FINAL ENVIRONMENTAL IMPACT STATEMENT

for the

REDDING RESOURCE AREA

DRAFT ( ) FINAL (X)

The United States Department of the Interior

Bureau of Land Management

1. **Type of Action**: Administrative (x) Legislative ( )

2. **Abstract**: This final Resource Management Plan and Environmental Impact Statement describes and analyzes alternatives, including a No Action (existing management) Alternative, for managing public lands within seven analytical units (management areas) comprising the Redding Resource Area, California.

3. For further information contact:

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REDDING RESOURCE AREA

PROPOSED
RESOURCE MANAGEMENT PLAN

AND

FINAL
ENVIRONMENTAL IMPACT STATEMENT

July 1992

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CALIFORNIA STATE OFFICE
UKIAH DISTRICT
REDDING RESOURCE AREA

Prepared by: Mark T. Morse — 7/20/92
Area Manager, Redding Resource Area — Date

Recommended by: David E. Howell — 8/6/92
District Manager, Ukiah District — Date

Approved by: Ed Hastey — 8/8/92
State Director, California — Date

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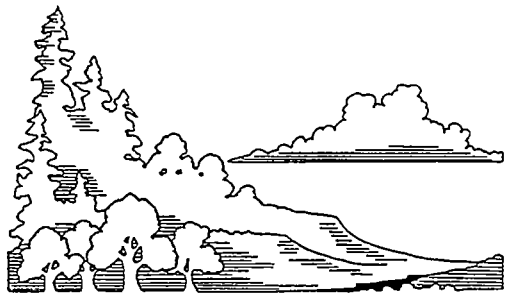

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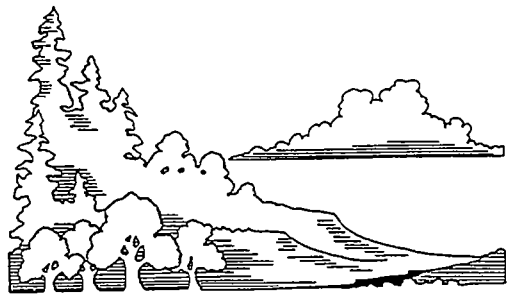


SUMMARY

DOCUMENT ORGANIZATION

The Redding Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement (RMP) identifies the direction for the proposed management of public lands and Federal mineral estate administered by the Bureau of Land Management (BLM) within the Redding Resource Area of north central California. The Redding Resource Area encompasses approximately 247,500 acres of public land and 142,400 acres of Federal mineral estate within Butte, Shasta, Siskiyou, Tehama, and Trinity counties. Public lands administered by BLM comprise roughly 2.5% of the entire land mass within the Redding Resource Area. The Resource Area is further described in Chapter 1, DESCRIPTION OF THE PLANNING AREA.

This RMP was prepared under the guidance provided by BLM planning regulations issued under the authority of the Federal Land and Policy Management Act of 1976 (FLPMA) and in conformance with regulations established by the Council on Environmental Quality regarding the preparation of Environmental Impact Statements as required by the National Environmental Policy Act of 1970. The RMP is focused on resolving four planning issues identified through a public involvement or scoping process. These issues include: land tenure adjustment (where BLM should provide long term Federal stewardship); recreation management (where and what mixture of recreation activities should be encouraged or discouraged); access (the ability of public users to physically access their public lands), and; forest management (where should forest management be permitted given existing restrictions and changing land ownership). In addition to the planning issues, BLM required decisions regarding a number of management concerns including special designations (Areas of Critical Environmental Concern, Special Recreation Management Areas, and streams eligible for inclusion within the National Wild and Scenic Rivers System) and specific requirements of BLM planning regulations. These planning issues and management concerns are further described in Chapter 1, PLANNING ISSUES and MANAGEMENT CONCERNS.

To adequately address the planning issues and to properly gauge the consequences of future BLM actions or authorizations, it was necessary to describe the resources located on public land administered by BLM and the relative value of those resources in a regional sense. Chapter 2 AFFECTED ENVIRONMENT provides a synopsis of the natural and cultural resources identified by an interdisciplinary team of resource specialists within sub-units of the Redding Resource Area termed "management areas". These management areas were established using geographic and political divisions in mind. The management areas include: Scott Valley, Klamath, Trinity, Shasta, Sacramento River, Ishi, and Yolla Bolly.

To assist decision-makers and the public in choosing appropriate solutions to the planning issues, BLM developed five generic land use management alternatives or options for application in all management areas. These alternatives include: NO ACTION (Continuation of existing approved planning guidance); ADMINISTRATIVE ADJUSTMENT; ENHANCEMENT OF NATURAL AND CULTURAL VALUES; RESOURCE USE WITH NATURAL VALUES CONSIDERATION, and; RESOURCE USE. In one management area (Sacramento River) development of a RESOURCE USE alternative was determined unrealistic and dismissed from further treatment. One alternative preferred by BLM was selected for each management area. Collectively, these preferred alternatives constitute the PROPOSED ACTION of the RMP. The PROPOSED ACTION includes a mixture of these preferred alternatives by management area as depicted on Table S-1 (found at the end of this Summary) and in the following:

ENHANCEMENT OF NATURAL AND CULTURAL VALUES

Sacramento River

RESOURCE USE WITH NATURAL VALUES CONSIDERATION

Ishi, Klamath, Shasta, Trinity

ADMINISTRATIVE ADJUSTMENT

Scott Valley, Yolla Bolly

Detailed descriptions of all land use management alternatives and the rationale for selecting the PROPOSED ACTION are found in Chapter 3 MANAGEMENT ALTERNATIVES INCLUDING THE PROPOSED ACTION.

The environmental consequences of implementing each land use management alternative were analyzed by an interdisciplinary team of resource specialists. Seven significant impact topics are described in Chapter 4 ENVIRONMENTAL CONSEQUENCES. These topics of regional importance include:

Anadromous Salmonid Habitat

Archaeological Resources

Deer Winter Range

Scenic Quality

Slender Orcutt Grass

Spotted Owl

Wetlands and Waterfowl

BLM actions were determined to have an effect on these resource topics in one or more management areas under at least one land use management alternative. A summary comparison of the environmental consequences to these significant impact topics due to implementing each land use management alternative within the Resource Area as a whole is depicted in Table 4-2 at the end of Chapter 4 ENVIRONMENTAL CONSEQUENCES. Many other impact topics were dismissed from detailed analysis since BLM actions would have imperceptible effects on the regional quality of these resources. These topics considered but dismissed from further analysis are discussed in Chapter 1 IMPACT TOPICS CONSIDERED BUT DROPPED FROM FURTHER ANALYSIS.

Organizations, agencies, and individuals provided BLM with useful input throughout the planning process, as noted in Chapter 5, OVERVIEW OF PUBLIC PARTICIPATION. Public involvement was maintained through the review of the Draft RMP resulting in 314 distinct comment types which were considered in preparation of this Final RMP. The SUMMARY OF COMMENTS section in Chapter 5 shows how BLM analyzed these comments. Based on these public comments, numerous changes were made to the Draft RMP. Some comments resulted in major changes or identified substantial controversy as noted in Chapter 5, COMMENTS OF PARTICULAR IMPORTANCE. These topics included consideration of the Grass Valley Creek watershed, disposal of scattered public lands, acquisition of private lands near Shasta Valley, and the determinations of BLM regarding eligibility of stream corridors for inclusion in the National Wild and Scenic Rivers System. BLM did, of course, consider every comment by responding individually or grouping with similar comment(s). These comments and responses comprising the bulk of Chapter 5 are portrayed numerically under COMMENTS AND RESPONSES.

SYNOPSIS OF MANAGEMENT ALTERNATIVES INCLUDING THE PROPOSED ACTION

A synopsis of the most important decisions and consequences of those decisions follow. The intent is to provide the reader with a summary understanding of the land use management alternatives and significant impacts described within this RMP. This synopsis is organized by each land use management alternative for the entire Redding Resource Area. Each land use management alternative description is followed by a brief summary of the net impacts to the seven significant impact topics noted above. The order of presentation of land use management alternative is: NO ACTION; ADMINISTRATIVE ADJUSTMENT; ENHANCEMENT OF NATURAL AND CULTURAL VALUES; RESOURCE USE WITH NATURAL VALUES CONSIDERATION; RESOURCE USE, and; PROPOSED ACTION. Maps which portray all of these land use management alternatives are found in a packet accompanying this RMP. Maps which collectively portray each Redding Resource Area-wide land use management alternative are noted at the beginning of each alternative summary.

NO ACTION (Maps 3-1a, 3-3b, 3-6a, 3-7a, 3-9b)

Under this land use management alternative, BLM would continue to emphasize resource management in the Sacramento River Area, the Trinity River corridor, and the Gene Chappie/Shasta Off-Highway Vehicle Area. Cooperative management would continue at Horseshoe Ranch Habitat Management Area, Forks of Butte Creek Recreation Area, the Upper Ridge Nature Preserve, and the Tunnel Ridge portion of the Trinity Alps Wilderness Area. BLM would provide some level of active management in Beegum Gorge, Shasta River Canyon, and scattered lands along the upper Klamath River, Battle Creek, and adjoining Lake Oroville State Recreation Area. BLM would initiate protective acquisitions in Deer Creek canyon. Most existing public lands could be available for exchange on a case-by-case basis.

Full implementation of this land use management alternative would result in public stewardship of 72 miles of anadromous salmonid habitat in key areas. Between 50 and 150 additional archaeological sites would be managed by BLM. The Whiskeytown deer herd area

would have increased public ownership; however, public land ownership would decrease in the Weaverville and Hayfork deer herd areas. Scenic quality would be protected along the Trinity River corridor, Sacramento River, upper Klamath River, Forks of Butte Creek, Beegum Gorge, and within the viewshed of Whiskeytown Lake. Six known sites encompassing 7.6 acres of slender orcutt grass would be protected. Some degradation would occur on 4,798 acres of existing public land deemed suitable habitat for the northern spotted owl, and; 1,288 acres of existing habitat would be protected. BLM would continue to protect 80 acres of existing pubic wetlands and develop additional acreage when possible.

ADMINISTRATIVE ADJUSTMENT (Maps 3-1b, 3-4a, 3-6b, 3-7b, 3-10a)

Under this land use management alternative, BLM would continue to emphasize existing resource management in the Sacramento River Area and the Trinity River corridor. The BLM would moderately increase public stewardship beyond the existing Gene Chappie/Shasta Off-Highway Vehicle Area toward Keswick Reservoir and Spring Creek Reservoir. The Horseshoe Ranch Habitat Management Area would double in size and currently planned acquisitions would continue in the Shasta River Canyon and Forks of Butte Creek Recreation Area. Several thousand acres of public land would be transferred to the U.S. Forest Service. BLM would develop a cooperative agreement with a local organization to manage Quartz Hill, if feasible. More than 10,000 additional acres of public land would be available for transfer to state or local government and other qualified organizations. The majority of public land interests would be available for exchange to acquire higher public resource values elsewhere.

Full implementation of this land use management alternative would result in public stewardship of 82.5 miles of anadromous salmonid habitat in key areas. Between 50 and 650 archaeological sites (the vast majority not eligible for inclusion in the National Register of Historic Places) would be transferred from Federal administration. Up to 25,000 acres of deer winter range would be exchanged resulting in an 18 to 23% reduction of the deer population in the Weaverville and Hayfork deer herds. Scenic quality would be maintained in the Trinity River corridor, upper Klamath River, Shasta River Canyon, Quartz Hill, Forks of Butte Creek, Sacramento River area and the viewshed of Whiskeytown Lake. Six known sites encompassing 7.6 acres of slender orcutt grass would be protected. Some degradation would occur on 4,798 acres of existing public land deemed suitable habitat for the northern spotted owl; and, 1,288 acres of existing habitat would be protected. BLM would continue to protect 80 acres of existing public wetlands and develop additional acreage when possible.

ENHANCEMENT OF NATURAL AND CULTURAL VALUES (Maps 3-2a, 3-4b, 3-6c, 3-8a, 3-10b)

Under this land use management alternative, BLM would emphasize: protection of deer winter range; protection of native wetlands; protection of riparian corridors; restoration of anadromous salmonid habitat; protection/enhancement of northern Spotted Owl habitat; maintenance of scenic quality; conservation of cultural resources, and; enhancement of non-motorized recreational opportunities. Resource use would be permissible in a few areas; however, significant constraints would limit actions to those with negligible impact on natural and cultural values with local (or greater) importance. Major public land consolidation and acquisition efforts would occur in: Horseshoe Ranch Habitat Management Area; Jenny Creek; Upper Klamath River/Shovel Creek; Shasta and Klamath River Canyons; Shasta Valley wetland (if not formally opposed by the Board of Supervisors); Shasta Grass Lake; Quartz Hill; the lower Scott Mountains (immediately southwest of Scott Valley); the Weaverville deer herd/Trinity River viewshed; Grass Valley Creek watershed; spanning the Trinity Mountains between Lewiston and French Gulch; the Interlakes Special Recreation Management Area between Kett, Central Valley, Whiskeytown, and French Gulch; Lower Clear Creek; upper Middle Fork of Cottonwood Creek/Beegum Creek; Sunflower Flat; Sacramento River/Battle Creek/Paynes Creek; Deer Creek; Butte Creek, and; Kanaka Peak.

Full implementation of this land use management alternative would result in public stewardship of 158.5 miles of anadromous salmonid habitat in key areas. Between 250 and 350 additional archaeological sites would be protected. Up to 38,400 acres of critical deer winter range would have long-term protection in the Weaverville and Whiskeytown deer herds resulting in a 15 to 25% population increase in those herds. Scenic quality would be maintained throughout most of the public lands within the Redding Resource Area described above. Nine known sites encompassing 113.8 acres of existing public land deemed suitable habitat for the northern spotted owl would be protected. Up to 31,774 acres containing existing wetland habitat would be acquired in Shasta Valley and Shasta Grass Lake resulting in a 15 to 25% long-term increase in waterfowl produc-

tion. Between 200 and 300 acres of additional wetlands would be protected in the Sacramento River Management Area (Bend area) with a 60 to 80% increase in local waterfowl population.

RESOURCE USE WITH NATURAL VALUES CONSIDERATION (Maps 3-2b, 3-5a, 3-6d, 3-8b, 3-11a)

Under this land use management alternative BLM would expand the Horseshoe Ranch Habitat Management Area to benefit deer. BLM would consolidate ownership in the upper Klamath River corridor to protect river recreation and natural values. Public ownership would be increased in the Shasta and Klamath River Canyons to protect riparian and anadromous salmonid values. Acquisitions would be made in a portion of the Shasta Valley, if not formally opposed by the Board of Supervisors, to protect wetlands and waterfowl. Public land consolidation in the lower Scott Mountains and Quartz Hill (adjoining Scott Valley) would enhance sustained yield forestry while protecting deer winter habitat and important northern spotted owl habitat. The Trinity River corridor would be managed to protect amenity values associated with the river. Grass Valley Creek watershed in Trinity County would be acquired and managed to reduced erosion. Public land surrounding the Trinity River corridor (excepting the Tunnel Ridge portion of the Trinity Alps Wilderness) and spanning eastward to French Gulch would be managed principally for sustained yield forestry, deer winter range habitat, special status species protection, and dispersed recreation. The Interlakes Special Recreation Management Area between Kett, Central Valley, Whiskeytown and French Gulch would be managed for a spectrum of recreation opportunities. BLM would improve lower Clear Creek anadromous salmonid habitat and the scenic values of Clear Creek canyon (above Clear Creek Road). Three areas in western Tehama County would be managed for deer winter habitat, sustained yield forestry, special status species protection and dispersed recreation. The Sacramento River Area, Battle Creek, Paynes Creek, Butte Creek, and Deer Creek would be managed for recreation and natural values. Several thousand acres of public land would be available for transfer to state or local government and other qualified organizations. Approximately one-fourth of existing public lands would be available for exchange for higher public values elsewhere.

Full implementation of this land use management alternative would result in public stewardship of 132.5 miles of anadromous salmonid habitat in key areas. Between 150 and 250 additional archaeological sites would be protected. Up to 38, 400 acres of critical deer winter range would have long-term protection in the Weaverville and Whiskeytown deer herds resulting in a 15 to 25% population increase in these herds. Scenic quality would be maintained along the Trinity River corridor, upper Klamath River corridor, Sacramento River corridor, the Shasta and Klamath Rivers Canyon, Whiskeytown Lake viewshed, Shasta Dam Scenic Drive, Muletown Road, and Butte Creek. Scenic quality would be enhanced in Deer Creek. Nine known sites encompassing 113.8 acres of slender orcutt grass would be protected. Slight degradation would occur to 4,079 acres of existing public land deemed suitable habitat for northern spotted owl, and; 2,007 acres of existing habitat would be protected. BLM would acquire up to 17,480 acres containing wetland habitat in Shasta Valley and between 200 to 300 acres of additional habitat in the Sacramento River Management Area (Bend area) resulting in a 15 to 25% and 60 to 80% increase, respectively, in dependent waterfowl populations.

RESOURCE USE (Maps 3-3a, 3-5b, 3-6d, 3-9a, 3-11b)

Under this land use management alternative BLM would continue existing management within the Horseshoe Ranch Habitat Management Area, Shasta River Canyon, and dispersed public lands along the Klamath River. Public lands would be consolidated in Quartz Hill and upper Duzel Creek/Noyes Valley Creek/Meadow Gulch to enhance long-term sustained yield forestry. BLM would also consolidate public land ownership between Lewiston and French Gulch, surrounding a narrowed Trinity River corridor, Duncan Creek, Elkhorn/Valentine Ridges, Tedoc Mountain and Butte Creek for sustained yield forestry and dispersed recreation. BLM would moderately increase the Gene Chappie/Shasta Off-Highway Vehicle Area toward Keswick Reservoir and Spring Creek Reservoir. Several thousand acres of public land scattered through the Redding Resource Area would be transferred to the U.S. Forest Service. BLM would consolidate public ownership within the Sacramento River/Lower Battle Creek/lower Paynes Creek to protect natural values and enhance recreational opportunities. More than 10,000 acres of public land would be available for transfer to local and state government or qualified organizations. Approximately one-third of existing public land would be available for exchange to acquire higher public values elsewhere.

Full implementation of this land use management alternative would result in public stewardship of 69 miles of

anadromous salmonid habitat in key areas. Approximately 100 additional archaeological sites would be managed in public ownership; but, significant degradation or destruction will occur to 15 important sites. Up to 25,000 acres of deer winter range would be exchanged resulting in an 18 to 23% reduction in the Weaverville and Hayfork deer herds. Scenic quality would be maintained in the narrowed Trinity River corridor, Sacramento River corridor, and minor public holdings in the upper Klamath River. Elsewhere, scenic quality could be degraded. Nine known sites encompassing 113.8 acres of slender orcutt grass would be protected. Moderate degradation would occur to 4,079 acres of existing public land deemed suitable habitat for northern spotted owl, and; 2,007 acres of existing habitat would be protected. Between 200 and 300 acres of additional wetlands would be protected in the Sacramento River area resulting in a 60 to 80% increase in locally dependent waterfowl. Wetlands in the Shasta Valley would continue to degrade affecting waterfowl production and wetland habitat on up to 16,000 acres.

PROPOSED ACTION (Maps 3-1b, 3-2b, 3-5a, 3-6c, 3-8b, 3-10a)

This land use management alternative represents a mixture of the preferred alternatives selected by BLM for each management area as noted in the beginning of this SUMMARY and on Table S-1. Under this land use management alternative, BLM would double the Horseshoe Ranch Habitat Management Area to benefit deer. BLM would consolidate ownership in the upper Klamath River corridor to protect river recreation and natural values. Public ownership would be increased in the Shasta and Klamath River Canyons to protect riparian and salmonid values. BLM would develop a cooperative agreement with a local organization to manage Quartz Hill, if feasible. Acquisitions would be made in a portion of the Shasta Valley, if supported by the Board of Supervisors, to protect wetlands and waterfowl. The Trinity River would be managed to protect amenity values associated with the river. Grass Valley Creek watershed in Trinity County would be acquired and managed to reduce erosion. Public land surrounding the Trinity River corridor (excepting the Tunnel Ridge portion of the Trinity Alps Wilderness) and spanning eastward to French Gulch would be managed principally for sustained yield forestry, deer winter range habitat, special status species protection, and dispersed recreation. The Interlakes Special Recreation Management Area between Kett, Central Valley, Whiskeytown and French Gulch would be managed for a spectrum of recreation opportunities. BLM would improve lower Clear Creek anadromous salmonid habitat and the scenic values of Clear Creek canyon (above Clear Creek Road). The Sacramento River Area including lower Paynes Creek and Battle Creek below Manton Road would be managed for natural values, semi-primitive recreation opportunities and protection of archaeological resources. Deer Creek and Butte Creek canyons would be managed to protect natural values and provide primitive to semi-primitive recreation opportunities. Several thousand acres of public land would be transferred to the U.S. Forest Service. Over 10,000 acres of public land would be available for transfer to state and local government or qualified organizations. Approximately one-half of existing public lands, principally in western Tehama County and surrounding Scott Valley in Siskiyou County, would be available for exchange for acquiring higher public values elsewhere.

Full implementation of this land use management alternative would result in public stewardship of 132.5 miles of anadromous salmonid habitat in key areas. Between 100 and 300 additional archaeological sites would be protected. Up to 38,400 acres of critical deer winter range would have long-term protection in the Weaverville and Whiskeytown deer herds resulting in a 15 to 25% population increase in those herds. Scenic quality would be protected in all areas with public land currently in Visual Resource Management Classes I and II. Elsewhere long-term scenic quality would be maintained or, as in Deer Creek and Butte Creek, enhanced. Nine known sites encompassing 113.8 acres of slender orcutt grass would be protected. Slight degradation would occur to 4,079 acres of existing public land deemed suitable habitat for northern spotted owl, and; 2,007 acres of existing habitat would be protected. BLM would acquire up to 17,480 acres containing wetland habitat in the Shasta Valley and between 200 to 300 acres of additional habitat in the Sacramento River area resulting in a 15 to 25% and 60 to 80% increase, respectively, in dependent waterfowl populations.

RATIONALE

The rationale for selecting the preferred alternative for each management area is found in Chapter 3 at the end of each management area discussion under RATIONALE FOR THE PROPOSED ACTION. What can not be found under these individual management area discussions is the rationale for the overall mixture of the preferred alternatives noted above: public interest, caliber of resource values, ability to fund or implement the decisions of the RMP, and impacts to local agencies, especially county governments.

The Resource Area-wide NO ACTION alternative provides little direction from the public except in very few areas. It leaves BLM with little guidance regarding which other public lands should be retained and actively managed in the public interest. Active management capabilities would continue to be hampered by trespass resolution and administrative costs associated with processing individual application for uses of the scattered public lands. Areas of significant resource values would continue to be threatened by private development. In some instances, e.g. Sacramento River, Clear Creek, Interlakes Special Recreation Management Area, opportunities would be lost to provide comprehensive management and improve public use opportunities.

The Resource Area-wide ADMINISTRATIVE ADJUSTMENT alternative would essentially strengthen the affirmative management commitments of BLM in areas already under BLM administration. With the sweeping disposal of public lands into the private sector or transfer to other agencies, this alternative would be easily funded. It would not, however, provide for significant increases in public use opportunities. In some instances, e.g. Sacramento River, Clear Creek, and the area west of Redding, future public use opportunities would likely be lost through land development. Areas of significant regional resource values, e.g. Shasta Valley wetlands and Grass Valley Creek watershed, would not likely be protected or made available for non-impairing recreational uses.

The Resource Area-wide ENHANCEMENT OF NATURAL VALUES alternative would roughly double the amount of acreage under BLM administration. It would place hardships on local agencies, e.g. Siskiyou County could lose up to 110,000 acres from their private property tax base. BLM could not realistically fund such an alternative which would greatly increase agency commitments with no anticipated increase in operational monies. Some of the areas identified for acquisition have limited public interest, resource values, and use opportunities, e.g. Noyes Valley/Duzel Creek, Sunflower Flat, and Middle Fork Cottonwood/Duncan Creeks. In addition, BLM would still be hampered by trespass resolution and administrative costs on public lands near Redding.

The Resource Area-wide RESOURCE USE WITH NATURAL VALUES CONSIDERATION alternative would generally be feasible. It would greatly increase BLM commitments and public acreage within the planning area. Siskiyou County could lose up to 86,000 acres from their private property tax base. Tehama County could lose substantial private property acreage as well. Some areas possess limited resource values and have limited public use opportunities, e.g. Sunflower Flat, Middle Fork Cottonwood Creek, and Noyes Valley/Duzel Creek. Administration of these areas would divert BLM's fiscal and human resources from other areas with regionally significant values and public use opportunities. Therefore, BLM would likely have limited success in meeting the obligations of the RMP if this alternative was selected.

The Resource Area-wide RESOURCE USE alternative would not significantly protect certain significant resource values in areas important to the public, e.g. Trinity River corridor, Grass Valley Creek watershed, and the Shasta Valley wetlands area. Future public use opportunities would likely be lost in Clear Creek and the area west of Redding. In many areas, public interest has been low and/or future recreational use opportunities would be minimal, e.g. Wells Creek, Elkhorn Ridge, Duncan Creek, Duzel Creek and upper Butte Creek.

The PROPOSED ACTION is designed to protect regionally significant values, e.g. Shasta Valley wetlands, Sacramento River, Trinity River, Grass Valley Creek watershed. It also responds to public interest in providing future recreation use opportunities in these areas and others, e.g. Clear Creek, Interlakes SRMA, Horseshoe Ranch, Klamath River, and Butte Creek. It also recognizes the impact on local agency revenues by potentially decreasing public land ownership in three counties. In two counties, the potential loss of privately-owned acreage is tempered by land values to some degree. In Shasta County, public lands identified for disposal generally have high potential taxable values due to proximity to Redding. Conversely, lands identified for acquisition are generally zoned natural habitat or timber production and have low taxable values. In Trinity County, disposal of public lands near Weaverville and Hayfork should offset purchases of remote privately owned lands for the same reason. A complicating factor for Trinity County is the proposed acquisition of the Grass Valley Creek watershed. If the federal government acquires the up to 22,000 acres within the watershed, disposal of other public lands within the county may be necessary to off-set potential impacts to the private property tax base. Alternatively, the federal government may consider some allocation of services or funds to compensate for the loss of the privately-owned timber production lands. The acquisition of Grass Valley Creek and its rehabilitation will depend on additional monies in BLM's fiscal budget. With this

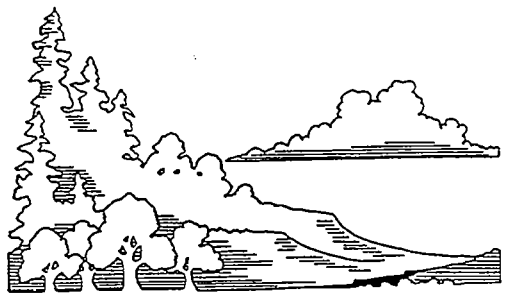
exception, the PROPOSED ACTION alternative is feasible and within the fiscal capabilities of BLM.

TABLE S-1

PROPOSED ACTION SUMMARY

MANAGEMENT ALTERNATIVES

MANAGEMENT AREA	NO ACTION	ADMINISTRATIVE ADJUSTMENT	ENHANCEMENT OF NATURAL VALUES	RESOURCE USE WITH NATURAL VALUES CONSIDERATION	RESOURCE USE
SCOTT VALLEY		X			
KLAMATH				X	
TRINITY				X	
SHASTA				X	
SACRAMENTO RIVER			X		
ISHI				X	
YOLLA BOLLY		X			



CHAPTER 1

INTRODUCTION

The Redding Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement (RMP) will guide the Bureau of Land Management's (BLM) management of 247,500 acres of public land and an additional 142,400 acres of Federal mineral reserve estate (split estate) within the Redding Resource Area of northern California. Sections 102 and 202 of the Federal Land Policy and Management Act (FLPMA) require the Secretary of the Interior to develop land-use plans for all public land under the administration of BLM. This RMP conforms to FLPMA, the planning regulations of BLM found in Title 43, Part 1600 of the Code of Federal Regulations, and the regulations of the Council on Environmental Quality in Title 40, Part 1500 of the Code of Federal Regulations requiring the preparation of an Environmental Impact Statement (EIS) on significant Federal actions including land use plans in conformance with the National Environmental Policy Act.

PURPOSE AND NEED

The primary purpose of this RMP is to update and integrate BLM land use planning for the Redding Resource Area into a single, comprehensive land-use plan. The approved RMP will update and replace the 1982 Redding Management Framework Plan for the Redding Resource Area. This RMP will provide the overall direction for managing and allocating public land resources and uses in the Redding Resource Area over the next 15 years.

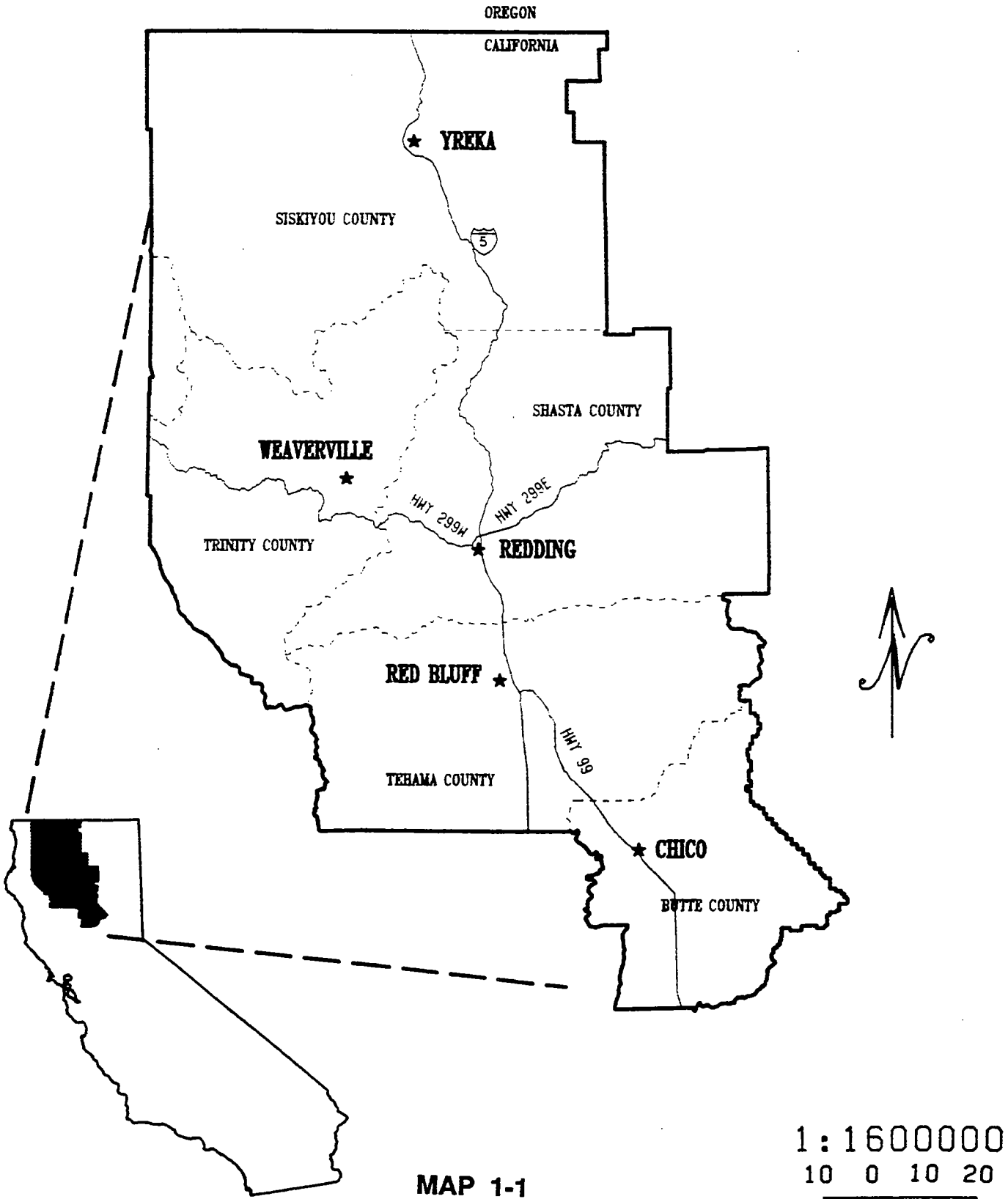
The EIS part of this document analyzes five generic land use management alternatives and the environmental consequences of implementing these alternatives within the Redding Resource Area. A sixth land use management alternative, i.e., Proposed Action, represents a mixture drawn from the preferred generic land use management alternatives for each geographic analytical unit or management area.

DESCRIPTION OF THE PLANNING AREA

The Redding RMP covers a planning area which is identical to the Redding Resource Area. The planning area encompasses approximately 9,914,000 acres within the north central portion of California. BLM administered public lands total approximately 247,500 acres or roughly 2.5% of the surface of the area within the Redding Resource Area boundary. These public lands are generally scattered throughout the middle, and to a lesser degree, lower elevations of the planning area. The over 1,000 individual parcels of BLM administered public land range in size from a fraction of an acre to over 8,000 acres. A discussion of the resources on these public lands is found in Chapter 2 - Affected Environment.

The planning area (MAP 1-1) encompasses all or portions of five counties including Butte, Shasta , Siskiyou, Tehama, and Trinity. Approximately one half of the planning area is privately owned land predominantly within the lower elevations or valleys. Significant areas of privately owned interests are within and surrounding the Sacramento, Shasta, Butte, and Scott valleys. The public owned half of the resource area is dominated by the U.S. Forest Service notably the Shasta, Trinity, Klamath and Lassen National Forests. Portions of the Mendocino and Plumas National Forests are also located within the planning area. The overwhelming majority of Forest Service administered public lands are located within the upper elevations of the planning area. Other significant Federal interests within the planning area include Lassen Volcanic National Park, Whiskeytown Recreation Area (National Park Service), the Sacramento National Wildlife Refuge (Fish and Wildlife Service) and Black Butte Lake (Army Corps of Engineers). Significant State of California interests include Horseshoe Ranch Wildlife Area, Butte Valley Wildlife Area, Tehama Wildlife Management Area (Department of Fish and Game), Latour State Forest (Department of Forestry and Fire Protection) and Lake Oroville State Recreation Area (Department of Parks and Recreation).

RESOURCE / PLANNING AREA LOCATION



MAP 1-1

Major population centers within the planning area include Redding and Chico. Redding is the job and service center for an urban area of 110,000 persons and the trade area for about 200,000 persons, including the towns of Red Bluff, Weaverville, Mount Shasta, and Burney. Chico is the job and service center for 80,000 persons and the trade area for over 120,000 persons. Yreka, the county seat of Siskiyou County, is the job and service center for roughly 10,000 persons and the trade area for over 40,000 persons.

Recreation, timber, and agricultural activities provide a significant majority of income to regional residents. Governmental employment, services, industry and retail are other notable contributions to the economic foundations of the planning area. The planning area has regional importance to tourists serving both California and an interstate population. Certain features like Mount Shasta, the Trinity Alps, the Trinity River, the Sacramento River, and Lassen Volcanic National Park attract visitors from the entire nation, and to a lesser extent, other nations.

PLANNING PROCESS OVERVIEW

The BLM resource management planning process consists of nine steps, as described below:

Step 1: Issue Identification

This planning step is designed to identify major problems, concerns or opportunities associated with the management of public land in the RMP area. Issues are identified by the public, the BLM and other governmental entities. The planning process is focused on resolving the identified planning issues which are explained on the next page of this document.

Step 2: Planning Criteria

Planning criteria are policies, laws, regulations and guidelines for resolving issues, developing alternatives and choosing a proposed plan.

Step 3: Inventory and Data Collection

This step involves the collection and assembly of certain kinds of biological, physical, social or economic information needed to resolve the planning issues. The inventory information is used in determining how the public land resources will respond to each of the alternatives. A synopsis of these findings is found in Chapter 2, AFFECTED ENVIRONMENT, of this RMP.

Step 4: Analysis of the Management Situation

The management situation analysis identifies the ways the BLM currently manages the planning area's public land and identifies opportunities to better manage this public land.

Step 5: Formulation of Alternatives

At this point, the BLM formulates a range of land-use alternatives for managing the resources in the RMP area. The range of alternatives are developed to resolve the significant planning issues and to address specific management concerns in the RMP area. This range of alternatives is applied to each geographic analytical unit or management area. Chapter 3 of this RMP and the draft RMP consists of these land-use management alternatives.

Step 6: Estimation of Effects

This step involves estimating the environmental effects of implementing each of the alternatives. The effects are estimated in order to allow for a comparative evaluation of impacts in each management area. Chapter 4 of this RMP and the draft RMP discusses the environmental effects of alternative implementation.

Step 7: Selection of the Preferred Alternative

Based on information generated during Steps 1 through 6, the BLM identifies a preferred alternative or proposed action. The draft RMP is then prepared and distributed for public review. The preferred alternative for each management area is identified in Chapter 3 of this RMP and the draft RMP. Collectively, the preferred alternatives for all management areas comprise the Proposed Action.

Step 8: Selection of the Resource Management Plan

Based on the results of public review and comment, received during a ninety-day review period, the BLM will select a Proposed Resource Management Plan and publish it with a Final Environmental Impact Statement (EIS). This document represents the results of this step of the planning process. A final decision is made after a 30-day protest period following the EIS publication.

Step 9: Monitoring and Evaluation

This step involves the collection and analysis of long-term resource condition and trend data to determine the effectiveness of the plan in resolving the identified issues and to assure that implementation of the plan is achieving the desired results. Monitoring continues from the time the RMP is adopted until changing conditions require a revision of the whole plan or any portion of it.

PLANNING ISSUES

Planning issues are the major concerns with the management of BLM administered public land within the Redding Resource Area. These issues drive the entire RMP process through all subsequent steps of the planning process since all the land-use management alternatives described in Chapter 3, MANAGEMENT ALTERNATIVES INCLUDING THE PROPOSED ACTION, are designed to address these issues. The environmental consequences addressed in Chapter 4 are the probable results of implementing any given land use management alternative as a solution to the planning issues.

The RMP planning team consisting of resource specialists, named in the LIST OF PREPARERS in this document, used a scoping process to identify the planning issues. This scoping involved interagency coordination, interdisciplinary brain-storming, and direct public input. Open public meetings were held in Redding (2/13/89), Red Bluff (2/15/89), Chico (2/21/89), Yreka (2/23/89), and Weaverville (2/27/89) to help BLM identify the major concerns of the public. BLM also encouraged and received letters and calls from the public to further define these concerns. Subsequent analysis of public and interagency input by BLM staff defined four planning issues which encompass the majority of concerns for management of BLM administered public lands. These issues include land tenure adjustment, recreation management, access and forest management. The issues have remained consistent throughout the RMP preparation process.

LAND TENURE ADJUSTMENT

The Redding Resource Area consists of more than a thousand individual parcels of public land, scattered through five counties in northern California. Many of these parcels are isolated and have no legal, or in some cases, physical access. Providing adequate management of the resources and public uses of such parcels is in many cases either impossible or prohibitively expensive.

There is a strong demand around cities and other communities for public facilities, urban development and individual needs, plus the infrastructure necessary for these items to function. Other Federal and State agencies, plus Native American Indian groups and private conservation groups have in the past indicated needs for public land to supplement their programs. The thrust of this issue is to identify land needed to meet public needs that the BLM should acquire through purchase, exchange, or donation. In addition, resolution of this issue will lead to the identification of isolated, difficult to manage, low resource value parcels which may be exchanged for other land within the Redding Resource Area having greater public benefits. A secondary goal is to identify land best suited for transfer to other Federal agencies, State agencies and local governments. Finally, land not needed by other agencies, unsuited for use in exchange programs and difficult or uneconomic to manage by the BLM, may be identified for disposal through sale authorities.

RECREATION MANAGEMENT

The demand for public lands for outdoor recreation uses continues to increase in both intensity and diversity throughout the Redding Resource Area. In many places public lands provide the only readily accessible opportunities to pursue wildland recreation opportunities. Most counties and communities rely upon public lands to fulfill the "Open Space" requirements of the recreation elements of their general plans, and these "Open Space" areas play a role in the economic and social health of northern California residents. Through the services provided under the BLM recreation programs, the general public is gaining an understanding and acceptance of BLM management practices, land use opportunities and constraints, and an appreciation of the value of the public lands to them on a personal level. Some recreational uses of the public lands either compete or conflict directly with other recreational uses or non-recreational uses allowed under the public land laws. The challenge under this issue is to provide for recreation opportunities, while resolving conflicts among recreationists and between recreationists, other legitimate public land users, or resource values sensitive to certain types of recreational uses.

ACCESS

Due to the BLM's scattered ownership pattern, the subject of acquiring access is becoming a concern throughout the Redding Resource Area. In many areas the public has been excluded from using public land because surrounding landowners have restricted physical access and the government has no legal access. Historically, the main thrust of the access program has been in support of the forest management program. This was due to the demand for forestry resources and very little competing demands being expressed by the public. However, in recent years the need to "get away" has placed a higher demand for access to all public lands for various recreational activities.

The emphasis of this issue will be to determine where access rights should be acquired for the general public as well as for administrative management purposes. In most cases, access is considered in the land-use management alternatives through land acquisition and consolidation. Specific access routes are not recommended although access is presumed necessary to implement the RMP.

FOREST MANAGEMENT

The current forest management program in the Redding Resource Area is directed by the Sustained Yield Unit-15 Environmental Assessment of 1981 (SYU-15), which identifies the available commercial forest land (location and acres) and specifies the allowable sale quantity. The available commercial forest land includes public lands which cannot be harvested at all or as intensively as anticipated in SYU-15 because of constraints on forest management practices such as Visual Resource Management restrictions along Wild and Scenic Rivers, herbicide use restrictions, special status species, plant and animal habitat requirements, and loss of available commercial forest because of land exchanges. These restrictions placed on forest management by other resource uses and management, and changes in BLM direction due to and public demand, make it desirable to examine the current program.

The emphasis of this issue will be to determine which land should be managed for commercial timber production and the management intensity on this land. From these determinations a new allowable sale quantity will be established at a later date.

MANAGEMENT CONCERNS

In addition to those decisions made to resolve the planning issues, BLM uses the RMP process to make other decisions to resolve management concerns. Many of these decisions are required through Supplemental Program Guidance (BLM Manual 1620) and California BLM State Director Guidance. A few decisions are made to address management situations especially applicable or unique to the planning area. These decisions or management concerns are treated in Chapter 3, Management Alternatives, within the context of an individual land-use management alternative or as they apply across all management alternatives, i.e. Management Guidance and Decisions Common to all Alternatives.

A list of some of the more significant decisions include: designation of Areas of Critical Environmental Concern (ACEC), designation of Special Recreation Management Areas, designation of corridors for portions of the Klamath, Trinity, and North Fork Trinity Rivers as existing Recreational components of the National Wild and Rivers System, determinations of eligibility (and preliminary classification) for inclusion of specific streams in the National Wild and Scenic Rivers System, motorized vehicle use designations, determinations of Recreation Opportunity Spectrum (ROS) settings to be maintained, establishment of Visual Resource Management (VRM) classes, establishment of community pits for mineral materials, designation of major rights-of-way, closure of areas to domestic livestock grazing, and identification of activity plans needed to implement the approved RMP.

IMPACT TOPICS

Implementation of any land use management alternative will have effects on the natural and social resource values within the planning area. Chapter 4, Environmental Consequences, assesses the impacts to certain resources which are considered important or significant. These significant impact topics include:

Anadromous Salmonid Habitat

Archaeological Resources

Deer Winter Range

Scenic Quality

Slender Orcutt Grass

Spotted Owl

Wetlands and Waterfowl

A full discussion of the positive and negative impacts to these significant topics is detailed in Chapter 4 by individual land use management alternative within the entire Redding Resource Area, i.e, the sum of all management areas. The combination of preferred land-use management alternatives or Proposed Action, is also evaluated for impacts in Chapter 4.

IMPACT TOPICS CONSIDERED BUT DROPPED FROM FURTHER ANALYSIS

Other natural and social resource values which may be affected by implementation of any land use management alternative are determined to be insignificant impact topics. These topics are not fully analyzed within this RMP. Rationale for not addressing these insignificant impact topics accompany an alphabetical listing of these resource management concerns.

Also included in this section are determinations made in this plan. BLM planning guidance requires that certain decisions be made during the RMP process unless: they are derived from other decisions, the resource is not present, or if a determination would be premature. As applicable these reasons are stated within this section or Management Guidance Common to All Alternatives in Chapter 3.

AGRICULTURE

Existing public lands in the Redding Resource Area contain no prime agricultural soils and are generally unsuitable for agriculture. Land use management alternatives do not recommend conversion of agriculturally suitable soils to a natural condition nor the elimination of agricultural production within the planning area.

AIR QUALITY

Public lands administered by BLM account for less than 2.5% of total acreage within the planning area. Uses on public land are generally short term with little or no impact on the quality or condition of the air. All activities approved or authorized by BLM would necessarily conform with the Federal Clean Air Act, BLM policies (refer to MANAGEMENT GUIDANCE AND DECISIONS TO ALL ALTERNATIVES in CHAPTER 3), State of California air quality standards and rules, as well as local regulations.

FOREST AND WOODLAND MANAGEMENT

The BLM manages approximately 1% of the commercial forest land within the area and provides less than 0.4% of the annual timber harvest within the planning area. Any impact to the regional economy is insignificant. Any changes caused by implementing any land-use management alternatives would not appreciably alter this minor contribution. Moreover, forest management practices in all land-use management alternatives must conform with the Timber Management Environmental Assessment for Sustained Yield Unit 15. No changes to the existing approved management practices are considered except for the northern spotted owl and Wild and Scenic Rivers as discussed in Chapter 3, Management Guidance and Decisions Common To All Alternatives.

FUELS MANAGEMENT

Fuels management including reduction of fire prone vegetation through burning or crushing is conducted at specific locations to protect property values, safeguard human life, or to facilitate establishment of a desired plant community. Each action is assessed individually for any possible impact related to project implementation. No decisions regarding proposed treatment areas are made under any land use management alternative.

HAZARDOUS MATERIALS

No decisions regarding disposal, storage, or treatment of hazardous materials are made in any land-use management alternative of this RMP. Additionally, decisions in this RMP do not authorize the creation, storage, or disposal of hazardous materials. Present BLM involvement with hazardous materials in the Redding Resource Area is limited to removal of hazardous materials inadvertently placed or illegally dumped on public lands, i.e., without authorization or approval by the BLM. Prior to the approval or authorization of a proposed project, BLM will determine if the project will create a hazardous material and assess appropriate storage and disposal needs.

HYDROELECTRIC DEVELOPMENT

Hydroelectric development is not considered to be a significant impact topic because determinations for hydroelectric development are not considered in any

management alternative. Waterpower and storage projects are permitted and regulated by the Federal Energy and Regulatory Commission (FERC). Those components of any hydroelectric or water storage projects occurring on public land require a BLM right of way. Granting of such a right of way is a discretionary action and the BLM's authority to issue such a right is separate and distinct from FERC's permitting authority. No public land-use management alternative considers closure or availability of streams to hydroelectric projects. The eligibility determinations of potential components of the National Wild and Scenic Rivers System (NWSRS) will significantly affect future hydroelectric developments on public lands, but the eligibility determinations do not vary by management alternative. Rivers determined to be eligible for inclusion in the NWSRS will be subject to interim management as components of the NWSRS. This will preclude any new dam construction or hydroelectric development which alters free flowing or outstandingly remarkable characteristics. Assessment of impacts to hydroelectric development is deferred to studies of suitability for inclusion of these streams in the NWSRS.

LIVESTOCK GRAZING

Grazing lessees currently use 51,200 acres of public lands for grazing of livestock on 59 leases. This means that only 1/5 of the BLM-administered lands within the Redding Resource Area are being utilized, reflecting the amount of suitable range that is available. The majority of the lessees (71%) consist of small operators which utilize less than 100 animal unit months (AUMs), with the remaining (29%) utilizing from 100 to 500 AUMs per lease. Redding Resource Area yearly production on public lands is 1,174 head of livestock, which is less than 1% of the total production (143,906 head) within the planning area boundary. Alternatives to increase or decrease grazing would have little significance in respect to the economy of these areas or the availability of suitable rangeland.

LOCAL AGENCY REVENUES

Presently BLM makes annual payments in lieu of taxes to counties containing BLM administered public land. Although substantial land tenure adjustments are recommended in some land-use management alternatives, overall Federal acreage within the individual counties will show little change. Four percent of the receipts from timber sales on BLM-administered public lands are made available to state and local government. This sum is insignificant since BLM contributes less than 0.4% of total timber production within the planning area.

MINERALS DEVELOPMENT

Impacts to mineral exploration and development are shown as the number of acres in the management areas and in the Redding Resource Area, by land-use management alternative, which are either "open", "open with no surface occupancy", or "closed" to mineral exploration and development. This quantitative portrayal is required by BLM policy to be included in this RMP. Appendix F contains this analysis for locatable minerals, leasable minerals and mineral materials.

Leasable Minerals Development

Fluid leasable minerals development is considered to be an insignificant impact topic. This is based on the following: lack of any past or current production on public land, small number (2) of oil and gas exploration wells ever drilled on public lands, lack of any geothermal exploration drilling, very limited amount of public lands and mineral estate in the Sacramento Valley which have high or moderate natural gas potential, and non-discretionary closures amounting to no more than 4,000 acres in any of the land-use management alternatives. The reasonable foreseeable development scenarios for geothermal and oil and gas development are just as likely to occur regardless which alternative is selected. Most public land with moderate or high potential will remain open to leasing. Moreover, greater opportunities for development have and will occur on private lands within the Redding Resource Area. These opportunities are due to the much larger percentage of private lands and the existence of proven natural gas fields in the Sacramento Valley on private land.

Locatable Minerals Development

Locatable minerals development is considered an insignificant impact topic because of the general lack of production, limited number of mining claims, small number of 43 CFR 3809 notices and plans of operation filed, and general lack of restrictions on locatable mineral development. The number of mining claims within the confines of the Redding Resource Area, including U.S. Forest Service managed lands, is approximately 21,800. Roughly 10% of these claims occur on BLM administered public land.

Negative impacts to locatable mineral development consist of withdrawals and land classifications which

permanently prohibit new mining claims and associated mineral exploration and development on the affected lands. These mineral withdrawals and classifications are enacted to protect other resources and land uses from the non-discretionary effects of locatable mineral development and patenting. The total acreage of public lands and mineral estate closed to claim location, by mineral potential, will be the measure of the impact on locatable mining in each alternative. These closures can be either discretionary, such as recreation or improved facility withdrawals, or they can be non-discretionary, such as designated wilderness areas.

There is little significant difference in the amount of existing public land withdrawn between the no action alternative and the proposed action. With the exception of certain specific areas this will mean that locatable mineral development in the Redding Resource Area will not be significantly affected by the decisions of this RMP.

Existing and proposed mineral withdrawals do not directly affect existing mining claims. Mining claims which are "grandfathered", that is, located before the land is withdrawn, continue to give the claimant the same rights that existed prior to the withdrawal. However, failure to record yearly proof of labor (assessment work affidavit), in accordance with Section 314 of FLPMA, results in mining claims automatically becoming null and void. If this occurred to a claim on withdrawn land, the claimant would not have the opportunity to re-locate his claim. Mining claims which are not valid due to a lack of a discovery of a valuable mineral deposit at the date of the withdrawal, cannot become valid later on by making a post-withdrawal date discovery.

Temporary segregations for land tenure adjustment are not considered a significant impact on locatable minerals. Most land disposals identified in this RMP will be via exchange for other lands. In many, if not most, instances, the land the BLM acquires in an exchange will be open and available for locatable mineral mining.

Land use decisions and classifications which result in mining operations having to submit a Plan of Operation rather than a Notice (see Federal Regulations at 43 CFR 3809), are not considered to be significant impacts on locatable mineral development. Mineral exploration and extraction may still occur wherever the miner chooses, but the BLM will more thoroughly review mining proposals, develop necessary reclamation and mitigation measures, and require the miner to post a reclamation bond.

Positive impacts to locatable mineral mining consist of: terminating some existing mineral withdrawals and classifications, leaving public lands open to mineral location, acquisition of new public lands which will be available for mineral entry, road construction by the BLM which provide physical access to public land, and the acquisition of public access to public lands currently with no legal access.

Mineral Materials Development

Mineral materials development is not considered to be a significant impact topic within the Redding Resource Area because of the historic low demand for these mineral resources, and much greater abundance and extraction of similar deposits on private lands. Over the last ten years the Redding Resource Area has sold or given away an average of approximately 5,200 tons per year, appraised at an annual average value of $2,000. This amounts to less than 1/2 of 1% of the total mineral material production within the confines of the Resource Area. There are no known market areas within the Redding Resource Area which are significantly dependent upon obtaining mineral materials from public land.

There are few closures of land to mineral material development in any of the land-use management alternatives. Most public lands will be considered open to development, subject to varying degrees of constraints, and after being examined on a case-by-case basis. However, BLM policy requires that this RMP identify areas that are or will be closed or open to mineral material disposal. Acreage by mineral potential, management area, and land-use management alternative are shown in Appendix F.

OAK WOODLANDS

Californians are increasingly concerned about the continued health of native oak woodland communities, i.e., Foothill Woodlands, Northern Oak Woodlands, and Great Valley Riparian Forest/Valley Oak Woodlands. Although some land-use management alternatives have recommendations (principally land tenure adjustment) which may affect some woodlands, significant woodlands would not be altered. Shifts in public land ownership would result in management of a minute fraction of these woodland communities.

OPEN SPACE

Open space has been dismissed as a significant impact topic because it is anticipated that through the

planning horizon no more than one to three thousand acres of public land will be converted to uses or developments which eliminate open space uses entirely. These affected lands are situated in and around the cities of Redding, Weaverville, and Hayfork, where the local governmental jurisdictions will be responsible for providing for open space areas. Provision of open space opportunities within such areas, where another governmental entity is responsible, would be inconsistent with BLM's mission. The affected public lands will be available to other governmental jurisdictions for provision of open space opportunities (via lease or sale under the terms of the Recreation and Public Purposes Act) prior to any disposition through exchange or sale. For these reasons, it was determined that open space would not be an appropriate significant impact topic in the Redding RMP.

PALEONTOLOGY

One area within the planning area contains important ammonite fossils. A fraction of this fossil bearing area may include public lands. No action proposed by BLM would enhance or deter research of these molluscs. BLM is unaware of any present or recent research within this fossil bearing area.

RIPARIAN

No land-use management alternative contains recommendations to degrade or transfer from public stewardship significant riparian habitat, e.g., Sacramento River, Trinity River, Shasta River, and Klamath River. Loss of any riparian habitat is offset by acquisition and improvement of creeks tributary to these major rivers. In all cases, BLM portions of these important habitats are restricted to a very small percentage of the total.

SPECIAL STATUS SPECIES

With the exception of slender Orcutt reed grass (Orcuttia tenuis), no land-use management alternative affects a significant amount of habitat of any special status plant or animal species (Refer to Appendix D for listing of these species). Due to current public interests, the northern spotted owl (Strix occidentalis caurina), a threatened species, is also being analyzed as a significant impact topic. BLM policy ensures that special status species are considered in context of any authorization. The Endangered Species Act obligates BLM to protect threatened and endangered species. BLM policy also mandates that no species become listed due to BLM authorizations. Therefore, no other species will be analyzed further due to BLM policy designed to protect special status species, limited public concern regarding any particular species on public land, and limited BLM administration within the range of current special status species.

SOCIOCULTURAL VALUES

Most concerns expressed by Native American Indians during the issue identification or scoping phase of this RMP process involved access to sites with local heritage value, protection of these heritage sites, and ownership of public lands.

A common theme in all land-use management alternatives is to enhance access to public lands for the public, including the members of local Native American Indian groups. All alternatives will enhance the ability of Native American Indians to access and utilize public resources. Furthermore, BLM is obligated under Federal law (as stated in the American Indian Religious Freedom Act) to protect and preserve the rights of native peoples to believe, express, and exercise their traditional religious beliefs. This policy and mandate applies equally to all land use management alternatives.

Although tribal or individual ownership of public lands is a concern to many contemporary Native American Indians, BLM has no authority or mechanism to transfer public lands either directly to native peoples or to the fiduciary responsibility of the U.S. Bureau of Indian Affairs. Moreover, all public lands are considered unsuited for agricultural entry including applications under the Indian Allotment Act. BLM has identified specific parcels which appear suitable for community development purposes as reservations for Federally recognized tribes. These parcels were identified by BLM in cooperation with the tribes and the Bureau of Indian Affairs. It is the responsibility of the tribes to develop legislation for the intra-departmental transfer of these public lands. BLM will maintain administration of these lands until legislation is approved by the U.S. Congress or at least five years after the approval of the Final RMP.

SOILS

No proposed land use allocations would significantly degrade nor remarkably improve soils stability and condition within the planning area. Any possible impact to soils would be considered prior to BLM approval or authorization of any surface disturbing activity. All activities would still continue to comply with the Federal soil conservation authorities, BLM soil resources

management policies, State of California soil conservation standards and rules, as well as local regulations.

TRANSPORTATION SYSTEMS

No recommendations are made under any land use management alternative which would result in a necessary modification of county, state, or interstate transportation routes.

UTILITY CORRIDORS AND COMMUNICATIONS SITES

All land-use management alternatives incorporate the occupied corridors identified in the 1986 Western Regional Corridor Study. BLM administered public land is an insignificant component within these developed and approved major rights of way. Any change in public land ownership administered by BLM would neither improve nor constrain the use or development of utility corridors. Moreover, only two commercial communication sites (South Fork Mountain near Redding and Antelope Mountain near Yreka) are located on BLM administered public lands. Given the amount of suitable sites in the planning area, BLM administration of commercial communication sites is unimportant.

WATER QUALITY

This topic has significant public interest within the Planning Area and the nation. The decisions made in this RMP, however, will have no significant negative impact on regional water quality, quality of municipal water supplies, or degradation of any particular watershed. No determinations are made in this RMP regarding acid mine drainage, i.e., point-source heavy metal contamination, since the California Regional Water Quality Control Board and the U.S. Environmental Protection Agency are already focusing considerable energy on resolving this problem.

The highly scattered existing public lands comprise a minor fraction of virtually any watershed within the Redding Resource Area. Under some land-use management alternatives, however, BLM recommends acquisition of riparian areas, watersheds, and wetlands. One resource objective common to these acquisitions is to maintain or improve water quality. In the Shasta Valley (KLAMATH MANAGEMENT AREA) for instance, BLM proposes to acquire, in some alternatives, significant acreage and intends to reduce existing sedimentation acreage and nitrate contamination of the native wetlands and a portion of the Shasta River. Since BLM presently administers very little public land within this approximately 17,000 acre area, we have no baseline data available to confidently measure the anticipated improvement in water quality. In keeping with the guidelines of the Council on Environmental Quality (Title 40 Code of Federal Regulations, Section 1502.22), BLM determined to have insufficient base data to provide an adequate analytical assessment of these expected positive or beneficial impacts.

WILD HORSES AND BURROS

Portions of two wild horse herds, McGavin Peak and Pokegama, occur in the Redding Resource Area. The McGavin Peak Herd consists of approximately 15 adult animals. BLM administers approximately 520 acres of public land within the 144,960 acres comprising the Pokegama Herd Management Area. Decisions regarding forage allocation and herd management are found in the Pokegama Herd Management Plan prepared by the Medford (Oregon) District Office of BLM and in the 1983 Draft Klamath National Forest Land and Resources Management Plan - Environmental Impact Statement. No further decisions are required concerning these herds.

Wild burros do not occur within the Redding Resource Area. Therefore, no determinations are needed regarding their management.

WILDERNESS

Portions of two designated wilderness areas (Trinity Alps and Ishi) include public lands administered by BLM. No changes to these designations are considered in this RMP. One wilderness study area comprising 640 acres adjoining the Yolla Bolly wilderness area is located within the planning area. This parcel of public land has been recommended as unsuitable for inclusion in the National Wilderness System. BLM is awaiting the conclusive determination of the U.S. Congress on this recommendation. Until this determination is made protection of this section of public land is afforded under the interim management guidelines of BLM for Wilderness Study Areas. No other areas are considered for wilderness designation as the remaining public lands do not meet the Section 2(c) criteria of the Wilderness Act of 1964.

WILDLIFE HABITAT

With the exception of deer winter range, anadromous salmonid habitat, and native wetlands habitat in portions

of the Redding Resource Area, BLM administers an insignificant fraction of upland game, avian, or resident fisheries habitats. No land-use management alternative would have a greater than local impact on these habitats.

PROTEST PROCEDURES

Any person who participated in the planning process and has an interest that is or may be adversely affected by approval of the proposed RMP may file a written protest with the Director of the BLM. Protests must be filed within the 30-day period after the Environmental Protection Agency (EPA) publishes a notice of receipt, in the Federal Register, of this Proposed RMP/Final EIS.

Only those persons or organizations who participated in this planning process leading to this RMP may protest. If BLM records do not indicate that an individual or organization had any involvement in any stage in the preparation of a proposed RMP, their protest will be dismissed without further review.

A protesting party may raise only those issues that he or she submitted for the record during the planning process. New issues raised during the protest period should be directed to the Ukiah District or Redding Resource Area Manager for consideration in plan implementation, as potential plan amendments, or as otherwise appropriate.

The period for filing a plan protest begins when the Environmental Protection Agency Notice of Availability of the Final Environmental Impact Statement containing the Proposed RMP or amendment is published in the Federal Register. The protest period extends for 30 days. There is no provision for any extension of time. To be considered "timely", the protest must be postmarked no later than the last day of the protest period. Also, although not a requirement, the protest should be sent by certified mail, return receipt requested. Protests must be filed in writing to: Director (760), Bureau of Land Management, 1849 "C" Street, NW, Washington, D.C. 20240.

In order to be considered complete, protests must contain, at a minimum the following information:

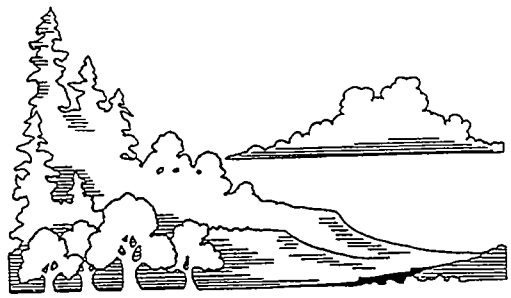
1. The name, mailing address, telephone number, and interest of the person filing the protest.

2. A statement of the issue or issues being protested.

3. A statement of the part or parts of the Redding Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement being protested. To the extent possible, this should be done by reference to specific pages, paragraphs, sections, tables, maps, etc., included in the document.

4. A copy of all documents addressing the issue or issues that the protesting party submitted during the planning process or a reference to the date the issue or issues were discussed for the record.

5. A concise statement explaining why the BLM California State Director's decision is believed to be incorrect. This is a critical part of a protest. Care should be taken to document all relevant facts. As much as possible, reference or cite the planning documents, environmental analysis documents, available planning records (e.g., meeting minutes or summaries, correspondence, etc.). A protest that only expresses disagreement with the California State Director's proposed decision without any data will not be considered.



CHAPTER 2

AFFECTED ENVIRONMENT

INTRODUCTION

Chapter 2 presents a description of the social, economic, and physical components of the environment which are found in the Redding Resource Area.

The first six general discussions in the overview below are presented to better understand the operating environment, significance of resources, the public concern about access, recreation management, forest practices, and management of scattered tracts. Following these discussions are descriptions of the resources found in each management area. Refer to Map 2-1 for the location of each management area.

OVERVIEW

LAND TENURE

The Redding Resource Area includes the public land and Federal mineral ownership managed by BLM in Shasta, Tehama, Butte, Trinity and Siskiyou counties. Included are 247,500 acres of public land, plus an additional 145,200 acres of split estate land, i.e., land with non-Federal owned surface and Federally owned minerals. A quick glance at a land status map for the Redding Resource Area clearly indicates the complex nature of the pattern of land ownership. The public lands are widely scattered throughout the five county area in over 1000 individual parcels of land. Tracts range in size from over 8,000 acres to less than one acre.

The history of public land management explains the origin of the dispersed pattern. The land currently managed by BLM is, for the most part, Federal land left after years of disposal of public domain through various laws, withdrawals for National Forests and reclamation projects, patented mining claims, and transfers to local governments for public projects.

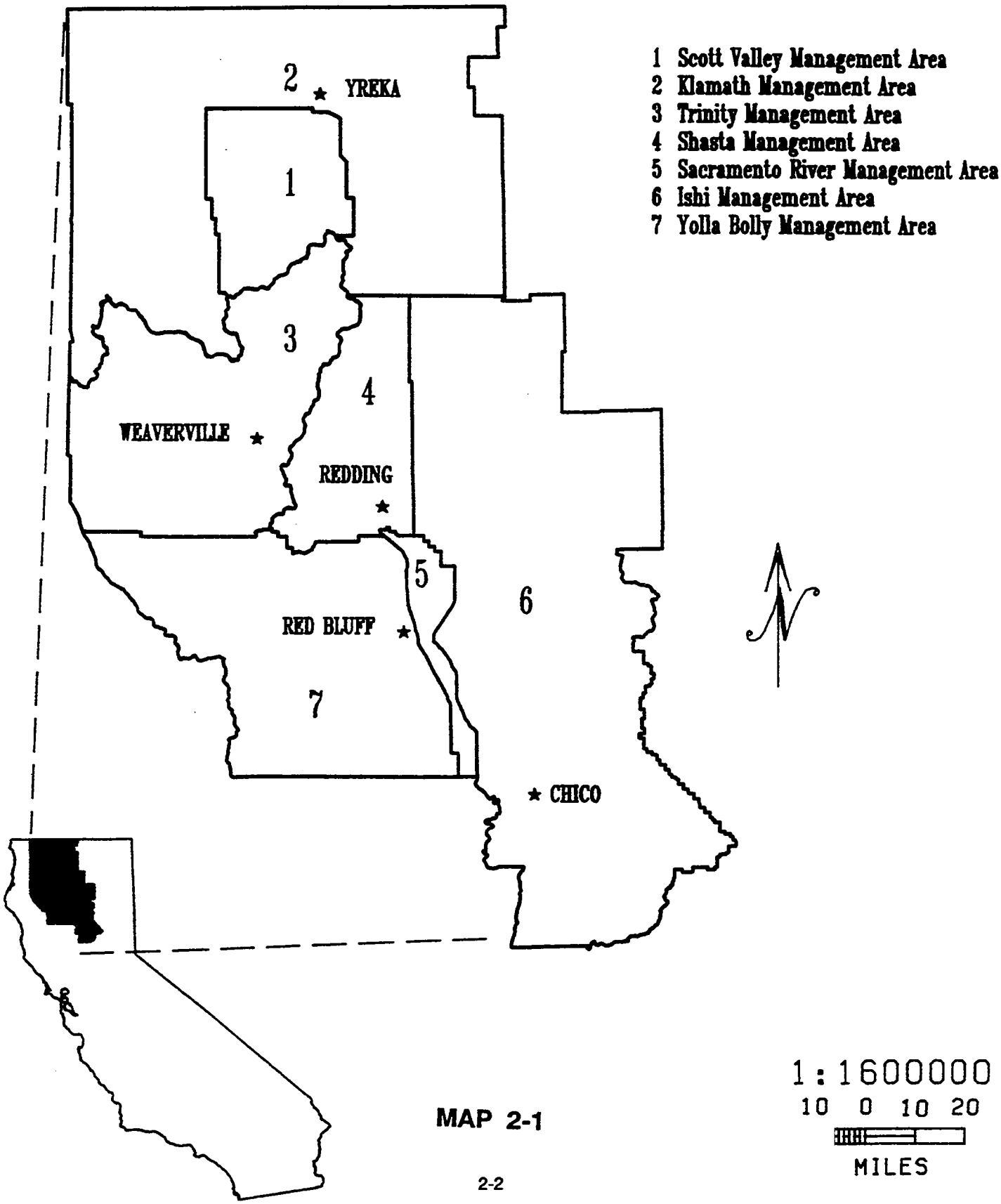
The scattered land pattern has impacted private citizens, local communities, state agencies, and other Federal land management agencies. In many cases, small tracts of public land are considered important for open space, mineral development, wildlife habitat, refuges for scarce plant species, parks, and a host of other uses. These same lands are also considered hindrances to community development, a source of nuisances, and a drain on Federal resources. The Redding Resource Area deals daily with actions related to these multiple focus parcels. Rights-of-Way, trespass, illegal trash dumping (including, on occasion, hazardous materials), vandalism of cultural resources, protection of rare species, all absorb BLM fiscal and human resources.

Until 1976, and the passage of the Federal Land Policy and Management Act (FLPMA), there was never a clear mandate for the retention or management of public land. FLPMA changed that with the clear statement that public land would remain in public ownership and would be managed by BLM under the principles of multiple use. In part, because FLPMA does allow disposal for public purposes and the sale of small parcels that are uneconomical to manage, much of the public still sees BLM as a land holding agency, not a land managing agency. Since 1976 there have been some acquisitions in the Resource Area through exchange or direct purchase to protect or enhance significant resources. Some land has been sold or exchanged to increase the efficiency of public land management. However, the basic ownership pattern and the associated management problems have never been addressed directly. Conversely, BLM has never clearly indicated where it will commit its limited resources within the Redding Resource Area.

ACCESS

One of the key results of the haphazard land pattern left to BLM is a lack of access to much of the public land in the Resource Area. Private land surrounds many of the parcels and often landowners are unwilling to allow public access across their holdings. This reluctance is based on a variety of factors including past vandalism, gates left open, a failure to respect private land boundaries, and a desire to control adjacent public land as an extension of private property. The lack of access to public land applies to BLM, too. Although responsible for the management and protection of public land, BLM often has no more legal right to access than the general public.

MANAGEMENT AREA LOCATIONS



MAP 2-1

This situation is extremely frustrating to people wishing to use their public land. In every public meeting held for this RMP, and in many of the written comments received during the scoping phase, this issue was raised and action demanded. At the same time a number of individuals expressed concern over the problems created for adjacent private landowners by the use of public land.

RECREATION

Recreation is fast becoming a cornerstone of the economy of Northern California. The recent growth in the Redding area is attributed largely to the recreational opportunities available in northern California. BLM administered public land currently provides (or has the potential to provide) significant amounts of recreational opportunities. Recreational use varies from low intensity hiking and bird watching to very intense uses such as off-highway vehicle races and commercial guiding services. Parcels of public land located near Redding or along important waterways receive the heaviest recreational pressure.

Public land along the Trinity, Shasta, Klamath, and Sacramento Rivers, and Butte and Clear Creeks have been the focus of the Redding Resource Area's recreation program. Beegum, Deer, Mill, Paynes, Battle, and Cottonwood Creeks receive less attention, but are very important to some individuals and groups. All of these water systems posses characteristics that have led to their nomination for study to determine if they are eligible and suitable for inclusion in the National Wild and Scenic River System. Wild and Scenic River designations have become extremely controversial over the past few years because of perceived impacts on private landowners and potential hydro-electric projects.

An issue that arises often is the conflict between various types of recreation and between recreationists and private land owners. Off-highway vehicle use is perhaps the most obvious case, but mountain bike use, commercial operations versus private recreationists, hunters, and plinkers can precipitate conflicts on occasion. The public has requested that BLM attempt to resolve the conflicts between "loud" uses and "quiet" uses of public land.

FORESTRY

All of the management areas (except the Sacramento River Management Area) contain some land physically suited for production of forest products. However, special designations, land use on adjacent private land, or sensitive plant and animal species limit the areas where timber can be harvested. The Redding Resource Area has only 39,151 acres of land physically suited for sustained yield forestry. This represents only a tiny fraction (approximately 1%) of the productive forest land within the Resource Area and approximately 0.4% of the annual harvest within the same area.

Normally the adjustments described above would be of little significance; however, the controversy over protecting old growth forests or continuing timber management is being argued so intensely that any Federal forest management activity becomes an important symbol of the larger controversy.

MINERALS

Mining activity was important historically throughout much of the Redding Resource Area. The remains of the historic activity are widespread: from mine tailings to the nearly intact remains of ore mills. Although active development of mineral resources is low at present, the exploration for valuable deposits of certain minerals (primarily gold) continues at a modest level. Mining claims are found in all of the management areas, except the Sacramento River Management Area. The extraction of sand and gravel is locally important for concrete production and other construction purposes necessary to sustain economic growth. Making land available for oil and gas exploration and development, while not locally important, is the subject of intense national debate.

Information on the geology, mineral resources, mining claim locations, mineral potential, mining history, and related bibliography for the Redding Resource Area, is contained in a mineral report entitled "Geology, Energy and Mineral Resources Assessment of the Redding Resource Area, California". This 1989 BLM report is available for review in BLM's Redding Resource Area office.

CULTURAL RESOURCES

The protection of cultural and historical resources was not identified as one of the issues driving this plan. However, comments received during the scoping phase indicates that the public is very interested in the conservation and study of these resources. Making public land available for Native American cultural and religious practices was of prime importance to Native American groups.

MANAGEMENT AREAS

SCOTT VALLEY

Public land in the Scott Valley Management Area consists of approximately 28,000 acres scattered in 127 parcels. The management area is located in the south-central corner of Siskiyou County (see Map 3-1a). Along with the public land managed in this area there are approximately 9,680 acres of private surface/federal minerals land managed by BLM. Numerous small rights-of-way have been issued by BLM in the Scott Valley Management Area, but no major right-of-way corridors cross public land.

In general public access throughout the Scott Valley Management Area is poor. Most legal public access is via the few state and county roads that cross tracts of public land. In the last five years physical access has been increasingly restricted. Every year more gates and trenching of private roads prevent longstanding public access. Examples of the loss of access to public land can be found in Duzel Creek, Moffett Creek, and McConaughy Gulch.

Approximately 7,201 acres of the management area are classed as available commercial forest land. Most of the commercial forest land is in the Klamath Mountains on the slopes above the Scott and Shasta valleys. Scattered parcels are located in the Scott Bar and Marble Mountains. The elevations of these sites range from 2,800 feet to 6,000 feet.

The forest stands occupy all aspects, but the higher quality sites are generally on the north and east slopes where cooler summer temperatures prevail. The timber type is predominantly mixed conifer with a few areas of pure Douglas-fir or pure ponderosa pine. Most commercial stands fall into site classes 2 and 3, although a few small stands are site class 1 (refer to Glossary).

Presently and historically approximately 800,000 board feet (800 MBF) is harvested from public land within the Scott Valley Management Area. The harvest method is generally via individual selection, although shelterwood and small (1 to 5 acres) clear-cuts are also used on a limited basis.

One BLM special status species is known to be located on public land in this management area. This is Scott Valley phacelia (Phacelia greenei), a serpentine endemic. Some tracts in the area contain suitable habitat for Yreka phlox (Phlox hirsuta) and timber bluegrass (Poa rhizomata)--two sensitive species that have been identified on adjoining private land. The primary threats to these species are chromium or base material mining and overgrazing.

The Noyes Valley / Duzel Creek / Moffett Creek area provides habitat for several pairs of spotted owls. Two pairs of spotted owls were located on BLM lands in the spring of 1991. Spotted owl surveys continue in this area and are expected to be completed in 1993. The U.S. Fish and Wildlife Service did not designate Critical Habitat within this area in their January 15, 1992 rule making.

Other areas within the management area also provide habitat for spotted owls. One pair of spotted owls is located along the western edge of the management area, and a single owl has been located along Little Greenhorn Creek. Finally, one pair of spotted owls and three young were observed on Quartz Hill in 1980 and a single owl was called in 1988.

Within the Scott Valley Management Area public land provides less than 30% of the total available deer winter range. Throughout the management area the productivity of the habitat has been declining due to wildfire prevention policies in a fire-maintained ecosystem. Deer numbers have declined from historic levels due to changes in agricultural practices, loss of habitat, and a decline in the productivity of habitat.

Approximately 8,000 acres of public land are contained in 8 grazing leases administered by the Redding Resource Area. These leases represent approximately 400 animal unit months (AUM). Two leases are currently classified as category "M" for maintain. The remaining allotments are classified as category "C" for custodial.

Scott Valley was first prospected and mined for gold in the mid-1800s, and during several periods thereafter. Most of the high grade placer and easily accessible lode deposits have already been mined. Recent minerals activity consists of limited gold mining and prospecting. There is no leasable mineral activity and very little mineral material use. As of January 24, 1989 there were 88 lode, 33 placer, one tunnel site and at least one mill site claim recorded with the BLM. Quartz Hill has the highest concentration of mining claims, with 59 claims, mostly lode variety. Recent activity consists of prospecting, limited underground mining and limited placer mining.

Cultural and historical resources on public land in Scott Valley reflect the topography and economic history of the area. There are 11 prehistoric sites and isolated artifact locations recorded on public land. Historic sites relate to gold mining, both placer and lode. They include mining camps, dumps, mining features such as the remains of a mill, tram, arrastre, and cabin locations. There are 14 recorded historic archaeological sites. The greatest concentration of historical sites, is at Quartz Hill. In addition to the above sites there is the Cedar Gulch Indian cemetery on Moffett Creek, and two wild celery (Lomatium californicum) gathering areas located on Quartz Hill. These gathering areas are still used by Native Americans. All three sites are considered culturally significant to the local Native American community. Quartz Hill itself is significant to these same people.

Recreation use throughout the management area is light, and primarily of local origin. The management area contains only one inventoried recreation attraction on public land, a small warm-water pond known as Blue Pond. Most of the public land recreational use is concentrated during the deer and bear hunting seasons.

KLAMATH

Located in north-central Siskiyou County, the Klamath Management Area contains 29,300 acres of public land scattered throughout 115 parcels (see Map 3-1a). In addition BLM manages 16,220 acres of reserved minerals in 51 parcels. There are numerous utility and access rights of way serving the public in this management area. These access corridors include Interstate 5, U.S. 97, State Route 89, county roads and railroads.

Legal and physical access to public land throughout this management area is very limited. No legal perpetual access for either administrative rights or for the general public has ever been acquired in this area. What physical access is available is via State Highways, Siskiyou County maintained roads, and by U.S. Forest Service administered roads.

BLM has classified approximately 1,479 acres of land as available commercial forest land. These acres are not concentrated within any one location, but are scattered throughout the management area at elevations between 2,800 and 6,000 feet. Individual selection harvest techniques are generally used although a few small clearcuts have occurred on the high quality sites. Based on acreage available for harvest, this area could sustain an annual harvest of 150 thousand board feet (150 MBF). Reforestation is done promptly as needed in harvest areas. In addition to the commercial timber harvests BLM has sold a variety of forest products such as firewood, posts, and poles on a limited basis to individuals.

Two sensitive plant species are known to be located on public land in the Klamath Management Area. In addition, there is a possibility that nine other plant species may be growing on public land in this management area. The two known species are Greene's mariposa lily (Calochortus greenei) and Peck's lomatium (Lomatium peckianum). BLM inventories of riparian vegetation in this management area indicate that nearly 60 percent of the riparian habitat on public land is in fair or poor condition.

The Jenny Creek watershed contains 134,878 acres most of which lie in Oregon. Approximately 3 miles of Jenny Creek occur in California and about 1 mile is administered by the BLM. In California, Jenny Creek flows through a very steep, rugged canyon and empties into Iron Gate Reservoir. Redband trout, the western pond turtle and the Jenny Creek sucker are residents of the creek and are listed as Category 2 species by the U.S. Fish and Wildlife Service. This creek has potential as a native rainbow trout fishery of exceptional quality. One Bald Eagle nest is located in Jenny Creek canyon and has produced young for the last three years. Nesting areas could occur on public land in the vicinity of Copco and Iron Gate reservoirs, but this has not been confirmed. Other raptors also nest in the canyon and there is some potential for peregrine falcon nesting in the canyon.

Jenny Creek is a proposed Area of Critical Environmental Concern in BLM's Ashland (Oregon) Resource Area as well as on the California side, administered by the Redding BLM. The California side has also been determined to be eligible for inclusion in the National Wild and Scenic River System. The natural system of this stream and its accompanying riparian zone are critical to the continued survival of the redband trout, western pond turtle and Jenny Creek sucker.

Jenny Creek suffers from many of the same problems that are plaguing many of the small streams in California. These include: reduced stream flows due to agricultural water diversions and water impoundments, damaged stream banks and increased erosion due to livestock grazing in the stream corridor, and past logging practices. It is felt that the above practices have been partly

responsible for declines in fish and wildlife resources in Jenny Creek and adjoining lands.

Secret Springs Mountain and Sheep Rock both have several raptor nests either on or near public land. The presence of a sensitive plant species, the Yreka phlox, resulted in a preliminary recommendation from The Nature Conservancy that BLM acquire land along Juniper Terrace. Although isolated from public land, a number of public comments recommended that the BLM acquire critical wetlands located in Shasta Valley, and Shasta Grass Lake.

A single eighty acre parcel of public land (Iron Dyke Mine) falls within a 67,000 acre northern spotted owl Designated Conservation Area spanning the Oregon border west of Interstate 5. A 160 acre parcel of public land adjoins another Designated Conservation Area at Willow Creek Mountain. BLM has an existing Memorandum of Understanding with the Klamath National Forest to manage the latter parcel to protect northern spotted owl habitat.

East of Interstate 5 along the Oregon/California border is the Horseshoe Ranch Habitat Management Area. Federal and State land is intensively managed for wintering deer. This area is administered jointly by BLM and the California Department of Fish and Game (CDF&G). Approximately 55 percent of the deer winter range (public and private) in this management area is inadequate to support the current deer population. Improvement of this range is of prime concern to CDF&G and Siskiyou County. Approximately 50-60 Rocky Mountain elk use Horseshoe or the area just to the east along the Oregon border. However, no special management goals for this elk herd have been set by CDF&G.

The Shasta River just upstream of its confluence with the Klamath River to the Interstate 5 bridge is one of the most important spawning areas for Chinook Salmon in the Klamath system. In this reach of the river occurs approximately one half of Shasta River Chinook spawning. BLM manages about 3.5 miles, or one half, of this stretch of river. In cooperation with CDF&G spawning riffle improvements were constructed and are maintained by the agencies. Because of the importance of this section of river BLM has designated it an Area of Critical Environmental Concern. The Shasta River also provides significant steelhead angling opportunities.

The Shasta Valley, between Lake Shastina and the Little Shasta River, consists of natural wetlands and ponds, reservoirs, meadows, drained wetlands that are being utilized for grazing and agriculture interspersed with dry, juniper covered, volcanic hills. The area has tremendous historic and potential values for waterfowl and other wildlife habitat. Based on public recommendations BLM has considered acquisition of some lands in this valley. In the spring of 1991 a Coordinated Resource Management Plan (CRMP) was initiated with the Shasta Valley farmers and ranchers (Shasta Valley Resource Conservation District) and the following agencies: U.S. Soil Conservation Service, California Department of Fish and Game, California Regional Water Quality Control Board, U.S. Army Corps of Engineers, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, Klamath River Task Force, Great Northern Corporation, U.S. Agriculture Stabilization Service, and California Department of Forestry and Fire Protection. The purpose of this CRMP is to provide a format for local farmers and ranchers to work together at a local level to seek solutions for restoration of the Shasta River and its associated fish and wildlife resources while maintaining current agricultural practices.

Other BLM stream ownership is much less significant than the Shasta River, primarily because of the small size of the stream sections. One of these small sections, about one half mile of Dry Creek, has been under a BLM Aquatic Habitat Management Plan since 1977. The goal of this plan is to increase steelhead production through spawning gravel placement and fenced protection of the riparian area. Jenny Creek north of the Oregon border is being considered for designation as an Area of Critical Environmental Concern to protect fisheries and other values.

Approximately 18,240 acres of public land are contained in 20 grazing leases administered by the Redding Resource Area and Ashland (Oregon) Resource Area. These leases represent approximately 2,220 animal unit months (2,220 AUM). One lease is currently classified as Category "I" for intensive. Nine leases are currently classified as Category "M" for maintain. The ten remaining allotments are classified as category "C" for custodial.

Current minerals activity consists of limited small scale placer and lode gold mining and prospecting. All recent operations have been part time, seasonal or sporadic in nature. As of January 24, 1989, BLM records listed 133 lode and 106 placer claims recorded in this management area. Generally, public lands west of Interstate 5 have the highest concentration of claims. There are currently two oil and gas leases held on public land in the management area, but there has never been any exploration for

oil and gas on public land and only very limited exploratory drilling in the region.

The Klamath Management Area contains a relative diversity of environmental settings which were variously exploited by Native Americans and later European explorers, trappers, miners, and settlers. Periodic surveys and existing historic documents have led to the recording of 55 archaeological/historical sites. Thirty-six of these are prehistoric sites, 15 are historic sites, and four contain both historic and prehistoric components. Prehistoric sites include villages along rivers, seasonal camps and hunting and work stations in the uplands, and temporarily used rock shelters. Historic sites primarily relate to gold mining and attendant settlement/occupation. Other sites relate to early livestock use. The Military Pass/Yreka Trail, a branch of the Applegate Trail (in turn part of the proposed California National Historic Trail), crosses through several sections of public land.

Based upon ethnographic studies and informant discussions, there are 16 Native American locations within the management area that possess possible cultural significance. These include named Shasta villages or rancherias, plant gathering areas, a possible burial location, Sheep Rock and Black Mountain. A number of sites described in Native American oral narratives occur in the management area. Some of these are marked by prominent landforms.

Most public land based recreational use occurs along the Klamath River and consists primarily of fishing and whitewater boating. River access is available at the Riverview site, Osburger historic cabin site, and the Borderline site. Because alternative river access is available via Pacific Power and Light facilities, use of public land is light. The Klamath River is a part of the National Wild and Scenic Rivers System downstream from the Iron Gate Dam, and is being studied for inclusion in the National Wild and Scenic Rivers System upstream from Copco Lake.

Developed recreational facilities are available at Mallard Cove on Copco Lake and at the Borderline Access. Both are maintained by Pacific Power and Light. The remainder of the area's public lands are generally physically accessible but seldom used due to a lack of recreational attractions. Some higher elevation areas are used for hunting (big game and upland). Off-highway vehicle use, including driving for pleasure, occurs on the scattered public land, however this use is usually incidental to some other activity which may not be focused on public land.

TRINITY

The approximately 48,746 acres of pubic land in the Trinity Management Area is located in 112 parcels scattered within larger blocks of private timber holdings, U.S. Forest Service land, and small private tracts (see Map 3-3b). Population in Trinity County is low, about 12,000, with most residents living in or near Weaverville and in the small communities along State Highways 3, 36, and 299. Approximately 80% of Trinity County is owned by the United States and managed primarily by the U.S. Forest Service.

Access to public land in this management area is much better than in other management areas. BLM has acquired thirty perpetual exclusive easements in support of the forestry program. Approximately 50% of the public land tracts can be accessed by the public. The Trinity River provides access to some parcels that would not otherwise be available to the public.

A unique problem has arisen in this management area. Several private surveys, used for subdivisions, were done incorrectly. Lots were sold and improvements made based on these erroneous surveys. This problem was revealed when BLM Cadastral surveys were performed in support of the forestry program. When the boundaries of public land were clearly defined, numerous unauthorized uses of public land were identified. These encroachments include yards, utilities, roads, houses, trailers, trailer parks, campgrounds, ponds and reservoirs, irrigation systems, and cemeteries. Areas where survey-related trespass problems have been identified include: T. 32 N., R. 9 W.,Blanchard Flats-Coal Mine-Indian Creek; T 32 N., R. 10 W.,Browns Mountain; T 33 N., R. 9 W., Steel Bridge-Poker Bar-Bucktail-Weaverville; T. 33 N. 10 W., Junction City-Slattery Pond-Weaverville; T. 33 N., R. 11 W., Junction City; and T. 34 N., R. 11 W., North Fork-Helena-Barney Gulch. Where possible, BLM has worked to resolve these inadvertent trespass cases. However, the Trinity River has been designated as a Recreational component of the National Wild and Scenic Rivers System from Lewiston Dam to its confluence with the Klamath River. This designation eliminates the option of sale within the recreational corridor and has blocked the resolution of a number of these inadvertent trespass cases.

Approximately 15,633 acres of this management area is in the avaiable commercial forest land and is managed

primarily for timber production. Tracts within the timber base are scattered throughout the management area. Based on acreage and productivity, the Trinity Management Area could sustain an annual harvest of approximately 2 million board feet (2 MMBF). This is an average and the actual volume fluctuated widely each year. The harvest method is generally individual selection, however, a few small (1-2 acres) clear cuts and seed-tree cuts have been made on the higher site areas. Reforestation is done promptly when needed in the harvest areas. Small scale sales of posts, poles, manzanita burls, Christmas trees, redbud boughs, and firewood (logging slash, blow-down, hardwoods) are made on occasion to individuals. There have been some commercial fuelwood sales in the past.

Approximately 4,560 acres of public land are contained in 5 grazing leases administered by the Redding Resource Area. These leases represent less than 500 animal unit months (AUM). One lease is currently classified as Category "I" for intensive and one lease as Category "M" or maintain. The three remaining leases are classified as Category "C" for custodial.

The Trinity Management Area was first prospected and mined for gold in 1848, following the discovery of placer gold along the Trinity River. Several major periods of gold mining followed thereafter. Most of the high grade placer and easily accessible lode deposits have already been mined. Along with gold there is a moderate to high potential in the area for sand and gravel, fractured rock and limestone.

Current minerals activity is limited to small scale placer and lode gold mining, fractured rock excavation, sand and gravel extraction, and prospecting for other minerals. With few exceptions, recent mining has largely been part time, seasonal, or recreational in nature. Suction dredging in the Trinity River and its tributaries is the most common type of mining in the area. Some small, commercial placer mining ventures have and are occurring in the Deadwood Gulch, Panwauket Gulch, Douglas City, and Bucktail Hole areas. Lode gold mining has largely been limited to exploration in existing mines. Public land in Deadwood-Eastwood Gulch, Bully Choop, Rich Gulch, Panwauket Gulch-Reading Creek, and Trinity River areas have the highest concentration of mining claims in the management area. There are currently no oil and gas leases held on public land, nor has there been any known exploration for oil and gas in the area.

Within the management area 9,260 acres have been professionally inventoried for cultural resources. These surveys have been scattered throughout the area, but were completed in support of BLM programs, or in conjunction with private activities on public land, and do not represent a random sample of the management area. These surveys have identified 58 locations containing cultural resources. These sites are dominated by historic sites left from the search for gold in the management area. Historic sites include portions of the gold mining communities of Bagdad/Helena, Indian Creek, and Deadwood. Indian Creek has been formally determined to be eligible for inclusion in the National Register of Historic Places. Numerous major locations of gold mining , principally hydraulic and placer, can be found on public land. These locations stand out from the pervasive remains of minor gold mining (amorphous tailings, small ditches, localized workings, etc.) found throughout the lower elevation public lands. Other sites include two major ditches (the La Grange and Brown's Mountain), two graves, and the Lowden Toll Road and bridge foundations.

The prehistoric sites include the National Register eligible site at Helena, the oldest known site administered by BLM in the area. This site may exceed 5,000 years in age. Other sites include upland small housepit locations, a mano cache, a milling station, and lithic scatters (see Glossary). A very important site is the late 19th century rancheria at Salt Flat which includes a cemetery, a large dance house pit, and scattered remains of settlement. It is considered sacred by some contemporary Wintu. Their ancestors were the principal aboriginal inhabitants of the area.

Public land accounts for approximately 30,046 acres of deer winter range in this management area. This winter range is used by only one deer herd, the Weaverville Deer Herd. Trends on the winter range appear downward, primarily because of reservoir development, subdivision of private land, and fire suppression. Since the construction of the Trinity Reservoir, some habitat work has been completed to try and reverse the downward trend.

One Federally listed endangered species, the Bald Eagle, is currently nesting adjacent to public land in the Jennings Gulch area. Special restrictions have been developed to limit activities on public land in the nesting territory during the breeding and nesting season. Northern spotted owls, a Federally threatened species, have been located on public land in several areas within the management area. BLM is currently conducting

inventories to determine if more spotted owls are using public land.

On January 15, 1991 the U.S. Fish and Wildlife Service published their final rulemaking within the Federal Register which designated spotted owl critical habitat. The rulemaking identified approximately 30 parcels of BLM administered land, totalling 13,000 acres, as critical to the northern spotted owl. BLM has designated two of these parcels as as Owl Habitat Areas (OHAs) to be managed principally for the spotted owl. BLM will need to consult with the U.S. Fish and Wildlife Service under Section 7 (a)(2) of the Endangered Species Act when proposing activities which may alter or destroy critical habitat. The following parcels of BLM administered land have been designated as critical habitat: T. 34 N., R. 11 W., Sections 3, 4, 9, 10, 14, 15, 16, 21, 22, 23, 25, 26, 27, 28, 34, 35, 36; T. 34 N., R. 10 W., Sections 17, 18, 19, 20, 32; T. 33 N., R. 11 W., Sections 1, 12; T. 33 N., R. 10 W., Sections 5, 6, 7, 8; and T. 33 N., R. 8 W., Sections 2, 3.

The only known sensitive plant that occurs on public land is Heckner's lewisia (Lewisia cotyledon var.heckneri). Two sensitive plants, Brandegee's eriastrum (Eriastrum brandageae) and Canyon Creek stonecrop (Sedum obtusatum spp. paradisum), are suspected to occur on public land.

Grass Valley Creek, situated between Douglas City and the Whiskeytown National Recreation Area, drains a 23,500 acre watershed known for it's erosive soils. Approximately 17,000 acres of the watershed is underlain with decomposed, granitic soils derived from the Shasta Bally Batholith. Slopes within the basin range from 2 to 50 percent with a drastic elevational relief ranging from 1,600 feet at the mouth of Grass Valley Creek to 5,950 feet at the crest of Shoemaker Bally. While the watershed is predominated by private ownership, BLM manages approximately 540 acres and the State of California, 480 acres.

The Grass Valley Creek watershed contains approximately 17,500 acres of commercial forested land that has been intensely managed for timber since the 1940's. Existing roads,skid trails and landings used with past timber harvest operations are believed to cause most of the 170,000 cubic yards of sediment discharged into Grass Valley Creek each year. Approximately 108,000 cubic yards of sediment is captured each year through a variety of catchments, including Buckhorn Dam, administered by the Bureau of Reclamation, and the Hamilton Pools. Still, 62,000 cubic yards of sediment circumvents the catchments, and is deposited for up to 30 miles downstream from Grass Valley Creek's confluence with the Trinity River, thereby degrading spawning gravels and other fishery habitat.

Riparian vegetation along the Trinity River has increased significantly since the construction of Lewiston Dam. The stabilized flows have led to more sediments being deposited along the river and the scouring effects of high water has largely been eliminated. Along tributary streams, however,riparian vegetation has been declining due to the construction of roads in the riparian zone, logging, mining, and the installation of utilities to private residences. The net result of the degraded riparian vegetation along the tributary streams and the increase in vegetation along the river is that more sediments are entering the Trinity River, and once there, are being deposited on spawning gravels in the river.

The general trend in salmon and steelhead populations from the Trinity River since the early 60's has been markedly down. However, severe restrictions on fish harvest since the mid 80's have resulted in a substantial increase in anadromous fish runs in the last three years. It is the primary fisheries goal of the various agencies having responsibility for habitat in the Trinity River system to restore anadromous fish runs to the levels that existed prior to the construction of water projects of the 60's. The Trinity River Basin Fish and Wildlife Restoration Act authorizes the expenditure of $57 million over a ten year period to meet this natural fish production goal. {Hatchery production, which accounts for a large proportion of existing runs, was only intended to mitigate for natural production lost to water projects.} The BLM manages approximately 20 miles of river habitat and 21 miles of tributary habitat. Many of the tributary streams managed by BLM are important spawning and or nursery areas for anadromous fish.

The Trinity River below Lewiston Lake receives heavy fishing pressure for Chinook salmon and steelhead. Fishing for brown trout and rainbow or juvenile steelhead is also significant, but probably amounts to only about 10% of the total effort. There is some limited fishing in tributary streams.

Nearly all public land within this management area are used for deer, bear, and small game hunting on a seasonal basis. The vast majority of recreational use is concentrated within the Trinity River corridor, with activity preferences in descending order of relaxing, fishing, camping, and float boating. Recreational use of all types in this area usually amounts to 100,000 visitor days

annually. BLM operates two full service fee campgrounds as well as a number of primitive campgrounds and river access sites. Carrying capacity for the developed BLM facilities is normally exceeded during the summer season holidays. However, use closely matches capacity over most of the heavy visitation season (May through November). Recreation management direction for the Trinity River is defined by the Trinity River Recreation Area Management Plan completed by the BLM in 1983.

There are currently fourteen commercial fishing guides operating under BLM Special Recreation Permits. Additionally, commercial whitewater boating is permitted cooperatively under a Memorandum of Understanding with the Shasta-Trinity National Forest, with most public land use occurring at the North Fork River Access. Recreational fees annually total more than $15,000 in this management area for camping and commercial uses.

This management area also contains a public land segment of the Trinity Alps containing approximately 4,875 acres in the Tunnel Ridge vicinity.

SHASTA

This management area is located entirely within Shasta County mainly west of Interstate 5, and south of Shasta Lake (see Map 3-3b). There are a few parcels of public land east of Interstate-5, but most of the public land in this management area, approximately 44,752 acres, is scattered west of Redding.

Many of the smaller parcels are squeezed between Redding and Whiskeytown National Recreation Area. Some tracts of public land are located within the Redding sphere of influence. These parcels are quite literally the backyards for thousands of residents. As such, they provide an enhancement to the quality of life and also property values for neighboring landowners and residents. They can just as easily become a major concern to neighbors when use for loud or destructive play, such as shooting, off-road vehicle play, drinking parties, trash dumping and authorized activities such as locateable mineral prospecting and development. Public land has also been a source of relatively inexpensive land for Shasta County and local communities for such purposes as schools, playgrounds, the Sacramento River Trail, and landfills.

Access via public roads exists to approximately 17,000 acres of public land in this management area. Public access has been acquired by the BLM in two areas, Honeymoon Ridge and Big Gulch. The Big Gulch area is located east of Clear Creek and north of the East Fork of Clear Creek. The four easements in Big Gulch provide access to 2,160 acres. BLM has issued many rights-of-way for access roads, utility lines, and public facilities across public land, and many tracts have physical access provided by these utility systems. Access in this management area has created two conflicting issues for BLM: one, the demand for more access to public land; and two, conflicts with adjacent private landowners caused by the use of public land where access already exists.

Recreational use of public land in this management area is very heavy. The proximity to Redding and the general lack of control on activities makes these tracts attractive to many residents. Use is primarily local in origin and commonly consists of activities such as shooting, off-road vehicle use, picnicking, hang gliding, swimming, horseback and mountain bike riding, gold panning, and hunting. This management area also includes the Gene Chappie/Shasta Off-Highway Vehicle Area, an inter-agency off-road vehicle use project that encompasses over 50,000 acres of federal and private land between Clear Creek and Keswick Lake. The Gene Chappie/Shasta Off-Highway Vehicle Area attracts recreationists from all over the state. Parts of the management area have been used for competitive events, including war games, bicycle moto-cross races, mountain bike races, off-road motorcycle races, archery competition and related camping. The growth of Redding in recent years has made a number of recreational activities that were once legitimate on these tracts, such as shooting, unacceptable or even unsafe.

One Federal candidate species is found on public land in this management area. The Shasta salamander is found in limestone outcrops around the Shasta Lake area. This species is listed as rare by the State of California. The Whiskeytown Deer Herd, a sub-unit of the Weaverville Herd, occupies an area between Shasta Lake and the Sacramento River on the east, and Clear Creek on the west and south. Public land makes up 31% of the deer winter range in this management area. This deer herd is primarily constrained by poor forage conditions on the winter range.

Many other wildlife species are found in the management area, including gray fox, racoon, black bear, mountain lion, valley quail, waterfowl, ringtailed cat, road runners, and many others. However, the urbanization of most of this area has eliminated a great deal of habitat.

In those areas where marginal habitat still exists, harassment from residents and their pets have greatly reduced the overall wildlife population and the number of species.

Chinook salmon, steelhead and resident trout are all found in the Sacramento River below Keswick Dam. Public land provides access to about four miles of the river above Redding. Jerusalem Creek, the North Fork of Cottonwood Creek, Whiskey Creek, and Clear Creek all support populations of resident trout. Salmon populations in the Sacramento river have been in decline. Both the Sacramento River and Clear Creek provide opportunities for fishery projects to enhance habitat for this species. With work, Clear Creek could, according to estimates by CDF&G, support up to 6% of the salmon population in the Sacramento River.

Only one sensitive plant is known to occur on public land, Canyon Creek stonecrop (Sedum obtusatum var. paradisum). One plant that could occur on public land is the newly discovered grass, Punccinellia howellii. This grass was found on an alkali seep near public land.

The Shasta Management Area has approximately 4,541 acres in the available commercial forest land. The majority of these acres lie between Wild Cow Mountain and Whiskeytown Lake and west to the Shasta/Trinity County line. The only significant exception to this generality is the Jerusalem Creek area. Less than 100 acres of commercial timber exists outside of these two zones. The timber type is predominately mixed conifer with a few areas of pure ponderosa pine or pure Douglas fir. Most commercial timber sites fall into site classes 2 and 3.

Presently and historically approximately 560,000 board feet (560 MBF) are harvested from public land within the Shasta Management Area each year. The harvest method used is individual selection, however shelterwood and small clear-cuts are also used on a limited basis. Other products from the forest, though not necessarily from the "commercial forest", include firewood (logging slash, blow-down, oaks, etc.), posts and poles. These miscellaneous products have historically been sold to individuals on request.

Approximately 4,240 acres of public land are contained in 5 grazing leases administered by the Redding Resource Area. These leases represent 175 animal unit months (AUM). All leases are currently classified as Category "C" custodial.

The Shasta Management Area was first prospected and mined for gold in 1848, following the discovery of placer gold in Shasta County at Clear Creek. Several major periods of gold mining interest followed thereafter. Most of the high grade placer and easily accessible lode deposits have already been mined. Along with gold there is a moderate to high potential in the area for silver, copper, zinc, lead, iron, sulfur, sand and gravel, and pumicite (volcanic tuff). Copper, zinc, lead, iron, silver, sulfur, and gold are found in massive sulfide deposits in the West Shasta Copper-Zinc District, southwest of Shasta Lake. Most of the massive sulfide deposits are on private property, and some adjacent public land.

Current minerals activity is restricted to small scale placer and lode gold mining and prospecting for other minerals. Recent mining has largely been part time, seasonal, and recreational in nature. Some small commercial ventures have and are occurring in the French Gulch area. As of January 1989 there were recorded 512 lode, 223 placer, and 19 mill site claims in the management area. Public land in the French Gulch-Deadwood, Old Diggins (Buckeye), Whiskey Creek, Kett, Swasey Drive, Muletown, Clear Creek, and Jerusalem Creek-North Fork Cottonwood Creek have the highest concentration of mining claims in the management area. There are currently no producing mineral leases or mineral materials disposals in the management area.

A variety of cultural resource types are found in this management area. These principally relate to prehistoric occupation and the use of rich lowlands near the Sacramento River and its primary tributaries, but also to the extensive gold mining activities centered on the stream beds and nearby terraces and hills. Public land contain prehistoric and historic sites that relate to most facets of the region's human history. These lands also hold areas of spiritual importance to descendants of the Wintu Indians who were here in large numbers at the time of European contact.

There are 88 archaeological sites known and recorded on public land within this management area. These include 24 prehistoric sites, four sites with both prehistoric and historic components, and 60 historic sites. Some of the prehistoric sites may be 7,000-10,000 or more years in age. There are also 16 Native American place name locations on public land and one Native American cemetery. The majority of archaeological surveys completed in this area were done in support of specific project proposals (although in recent years cooperative agreements with regional colleges and universities have been used to complete generalized

surveys), and most of the management area has never been inventoried. Based on the surveys completed, it is estimated that as many as 500-700 archaeological sites may be located on public land in this management area. looting of both historic and prehistoric sites is a constant problem on sites in this management area, especially near Redding. In addition to the scientific data destroyed by this criminal activity, the disturbance of burial sites is a source of extreme concern to Native Americans. Control of this looting is very difficult given the land pattern in this management area.

SACRAMENTO RIVER

The smallest of the seven management areas, the Sacramento Management Area lies along both sides of the Sacramento River in Shasta, Tehama and Butte Counties (see Map 3-6a). Above Red Bluff the river is dominated by a bed rock corridor, and below by a alluvial floodplain. There is a concentration of public land above Red Bluff between Jellys Ferry and Iron Canyon. This concentration is known as the "Sacramento River Area" and includes the mouths of both Paynes and Inks Creeks. The remaining public land consists of various islands and small parcels upriver and downriver from the Sacramento River Area. Total public land acreage in this management area is 12,194 acres. Both Todd and Foster Islands, downriver from Red Bluff, are on the California Natural Diversity Data Base list of Significant Natural Areas. Indeed, the entire river is considered very significant by many conservation groups, agricultural interests, and the general public. Nowhere else in the Redding Resource Area is there a more dramatic demonstration of the significance relatively small public land holdings can have on disappearing environments and recreational opportunities.

Acquisition programs currently being implemented by various state and federal agencies have focused a great deal of attention on the Sacramento River.

Agricultural development and urban development have destroyed approximately 95% of the native riparian habitat along the Sacramento River that existed at the time of European contact. Any remaining riparian vegetation is considered extremely important, especially below Red Bluff. Riparian vegetation along the Sacramento River was classified in 1988 by the California Department of Fish and Game. The following classifications were made for public land along the River: Sacramento River, Paynes Creek, and Inks Creek, Great Valley Mixed Riparian Forest; Todd Island, Great Valley Cottonwood Riparian Forest and Great Valley Mixed Riparian Forest; Foster Island, Great Valley Mixed Riparian Forest; and Sacramento Island, Great Valley Oak Riparian Forest. Major tributaries to the Sacramento River Area such as Battle Creek, Inks Creek and Paynes Creek have willow-alder associations with dense undergrowth. Other streams in this management area are characterized by bed rock or grasses along the water course.

This management area contains some of the best public grazing land in the Redding Resource Area, producing more forage per acre than elsewhere in the Resource Area. Approximately 8,192 acres of the management area are leased and 1,560 animal unit months are harvested each year. The grazing season generally runs from December to May. Currently the residual mulch left after grazing is more than adequate to protect this resource. Most of the grazing leases are held by full-time ranching operations.

Three sensitive plant species are known to be present on public land in this management area. They are silky cryptantha (Cryptantha crinita), Fremont's calycadenia (Calycadenia fremontii), and slender orcutt grass (Orcuttia tenuis). Two sensitive plants thought to occur on public land are Red Bluff dwarf rush (Juncus leiospermus var.leiospermus) and adobe lily (Fritillaria plurifora). Slender orcutt grass and Red Bluff dwarf rush are both associated with vernal pools. Vernal pools support a variety of endemic species and are a unique habitat type. They are typified by prolonged inundation in winter and spring, and complete dryness in summer. Vernal pools are fairly rare now due to conversions caused by agriculture, urban development or to impoundment. A number of vernal pools are present on public land in this management area. Within the Sacramento River Area there is a prime example of a native blue oak (Quercus douglasii) woodland. Statewide, this community is rapidly disappearing due to cutting and mismanagement.

Upland areas in this management area support good populations of quail, mourning doves and wild turkeys. Deer winter range is generally in good condition. Bald Eagles use the Sacramento River during the winter months for roosting and feeding. Some have established permanent residence. Yellow billed cuckoo (a State listed endangered species and federal candidate for listing as "Endangered") habitat exists at Todd Island. Calling in recent years has revealed the presence of the Cuckoo only at Todd Island. Migrating waterfowl make use of wetlands at Table Mountain and Paynes Creek.

Cold water releases from Shasta Dam makes the Sacramento River excellent year-round habitat for several cold water species. Important fish species in the river include resident rainbow trout, steelhead, and four recognized runs of Chinook salmon. All of the salmon runs have declined in recent years and the winter run is currently listed as threatened. Salmon spawning habitat on public land is present in Paynes Creek, Cottonwood Creek, and in the Sacramento River at Todd Island. Paynes Creek, and at least one pond in the Sacramento River Area, provide habitat for small-mouth bass and green sunfish.

This is an extremely important area of cultural resources, regionally one of the most important in the Redding Resource Area and undoubtedly one of the most important in California and the west with more than ten archaeological sites per square mile on public land. The Sacramento River and its tributaries formed a focus for both considerable prehistoric occupation and use and historic activities. The valley was rich in resources, including salmon in the river, and acorns, deer, quail, rabbits, and other food products nearby. Grazing and timber-related industries formed the historic focus. In addition, this segment of the river has not yet been subjected to much modern development allowing the preservation of cultural resources. However the pristine nature of the cultural resource is beginning to be degraded by looters, and there is some natural erosion and deterioration due to grazing and unauthorized vehicle use.

The Sacramento Management Area receives heavy recreational use every year. There is one full-service campground with associated boat ramp and dock, fishing access trails, and potable water at Reading Island. There are several other areas with less development, however only portal kiosks, toilets, and parking areas have been developed to date. This management area provides over 21,500 visitor days (VDs) of angling, 2,500 VDs of camping, 2,100 VDs of hunting, and 4,000 VDs of motorized recreation in the form of vehicle play or motorized sightseeing. Recreational use in this area is seasonally concentrated. Float boating and rafting are popular during the hot summer months, while hunting, horseback riding, and sightseeing tend to be more popular during the cooler months of the year. Fishing is popular throughout the year, with high concentrations of anglers on the river during salmon and steelhead runs.

The recreation attraction provided by the Sacramento River flowing through undeveloped tracts of public land creates a draw for tourists (fishermen, boaters, campers) from throughout the region. This increased tourism has a positive economic impact on the communities situated on the river as local businesses provides goods and services. The Sacramento River Management Area provides some fairly hard to find recreational opportunities, and its proximity to major transportation routes enhances the quality of life for many local residents.

Exploration and development of mineral resources in this management area is of relatively minor importance. There are no known mining claims, and no producing mineral leases or sales. There are three oil and gas leases within the management area, and there is a moderate to high potential for natural gas in the area. The management area does include areas with moderate to high potential for decorative stone and aggregate (sand and gravel), but development is not occurring at this time.

ISHI

BLM manages approximately 36,526 acres scattered in 252 parcels within the Ishi Management Area (see Map 3-7a). In addition, approximately 78,560 acres of reserved minerals are administered by BLM in this management area. Tracts of public land are scattered from near Shingletown in Shasta County to the southern edge of Butte County. For the most part, public land is located between the agricultural land in the Sacramento Valley and the National Forest boundaries.

As in the management areas previously described most of the access to public land in this management area is provided by other than BLM roads, e.g. State, County and U.S. Forest Service controlled and maintained travel ways. However BLM has acquired public access rights via perpetual exclusive easements on four roads in the vicinity of Butte Creek in Butte County. The four are the Powerline Road, Ditch Creek Road, Garland Spur, and Dix Mine Road.

Historically BLM has removed an average of approximately 800 thousand board feet (800 MBF) from the 7,706 acres of public land in the avaiable commercial forest land. Public land suitable for producing commercial timber is scattered throughout the management area, however, there is a concentration of acreage in the Cohasset Ridge, Doe Mill Ridge, and Butte Creek vicinity northwest of Chico. This timber tends to be portions of larger stands segregated only by ownership lines or harvest boundaries. Elevations range from 1200 feet in Bear Creek Canyon to 6,000 feet at Bald Mountain. The

BLM supplies less than 1% of the total timber cut in Butte, Tehama and Shasta Counties, but is locally significant in the Butte Creek, Cohasset Ridge and Doe Mill Ridge areas.

Approximately 7,720 acres of public land are contained in 15 grazing leases administered by the Redding Resource Area. These leases represent approximately 940 animal unit months (AUM). Three leases are currently classified as Category "M" for maintain. The remaining twelve leases are classified as Category "C" for custodial.

Three sensitive plant species are known to occur on public land in this management area. They are: Slender Orcutt grass (Orcuttia tenuis); Closed lip penstemon (Penstemon personatus); and Butte County checkerbloom (Sidalcea robusta). Eleven other sensitive plant species are suspected to be present on public land, but their presence has not been confirmed. One rare plant that does grow on public land in the management area is Baker cypress (Cupressus bakeri). Although not on BLMs list of sensitive species, this tree is found in only eight small locations statewide. The 40 acre stand on public land is remarkable due to its undisturbed condition, the size of the individual trees, and the fragmentation of the remaining examples of the Burney Springs population. Other examples of the Burney Springs populations exist as small stringers within pine plantations managed by the U.S. Forest Service for timber production.

Most of the Ishi Management Area is deer winter range, with summer range on parcels located above 3,000 feet in elevation. Three migratory deer herds range through the area in addition to the resident herds found along most major streams. Throughout the management area deer herds are limited by poor condition of the summer ranges. A small band of Rocky Mountain elk that ranges from Bella Vista to Shasta Lake and east into the Oak Run area may occasionally use tracts of public land. Wild turkey populations are excellent in Shasta and Tehama Counties. The highest concentrations are found in Shasta County. At least one mineral spring on public land in Shasta County is important to both Bandtail pigeons and local hunters.

The California spotted owl occurs in the Ishi Management Area. It is a special status species and will be managed according to guidance in Chapter 3, Management Guidance And Decisions Common To All Alternatives. One Spotted Owl Habitat Area (SOHA), which is partly on public land, has been identified by the Lassen National Forest. This SOHA is located in the Dan Hunt Mountain area (T. 33 N., R. 2 E., Sections 3 and 10) and contains approximately 400 acres of public land administered by the BLM. Additional information on the location of this species is very limited at this time.

Archaeological inventories have been conducted on some eighty-seven parcels of public land encompassing approximately 6,650 acres. Eighty-three archaeological sites and isolated artifacts have been located on this 18% of the public land giving an average site occurrence of one site per 79 acres of public land. This average varies within the management area: The area around Lake Oroville is rich in archaeological sites whereas many rough upland parcels have a very low sensitivity for any cultural resources.

Prehistoric sites include large middens or villages, smaller middens, or presumed temporary camps, lithic scatters, bedrock mortars, petroglyphs, and a number of rockshelters used for occupation. Six recorded isolated artifacts are included in the 48 recorded prehistoric locations. The Martin Cemetery near Oroville is a still-used Native American cemetery with an associated dance house pit and a reported mourning site. Perhaps the most famous site in the entire north state is the Ishi camp and caves area on Deer Creek.

Historic sites include homesteads, mines, mining camps, stamp mills, mining ditches (such as the Cherokee and Miocene ditches), dumps, rock walls, a corral and loading chute, the Old Forbestown area with its cemetery and brothel ruins, and historic roads and trails, including the Humboldt Road and Lassen Trail (part of the California Trail under consideration for designation as a National Historic Trail). Most of these historic sites are located in Butte County.

Ethnographically, the management area was inhabited by the Konkow, Yana and Pit River Indian groups, all of whom were generalized hunters and gatherers with a focus on salmon, deer and acorns as principal foods. Based on past studies, six culturally significant locations exist on BLM administered public land. These sacred sites include a cemetery, Ishi's camp, a mountain peak, and three other geographic locations. Beargrass has been collected traditionally on Hatchet Mountain. Other traditional collecting areas may exist but are unknown to BLM.

A number of creeks and streams flow through this management area that are at least locally important. These include Butte Creek, Antelope Creek, Mill Creek,

Deer Creek, and Big Chico Creek. Deer and Mill Creek have been identified by a number of organizations as worthy of study for inclusion into the National Wild and Scenic River System. Public land along these waterways generally consists of small parcels scattered at wide intervals along the course of the creeks. In the case of Deer Creek public land may not actually reach the banks of the stream. Public land along Mill Creek has been used as a take out point by some rafters. Very little inventory work has been done on any of the riparian vegetation in this management area. Where studied, the condition of riparian areas is dependent upon management actives in the watershed above the public land.

The Ishi Management Area is located in four geologic provinces: Klamath Mountains, Cascade Range, Great Valley, and Sierra Nevada Mountains. Recent minerals activity consists of small scale placer and lode gold mining and prospecting. All recent operations have been part-time, seasonal, or sporadic in nature. As of January 1989, BLM mining claim records showed that there were 71 lode, 116 placer, and 4 mill site claims recorded in this management area. Generally, public land in the Ingot, Forbestown, Butte Canyon, West Branch Feather River, and Lake Oroville areas have the highest concentration of mining claims and mining activity.

There are currently five oil and gas leases held on public land. Regionally, oil and gas exploration has been concentrated in the Sacramento Valley, with several gas fields developed in the southwestern corner of Butte County. There has been no known exploration for oil and gas on public land or Federal mineral estate.

Recreational use of public land in the Ishi Management Area is light due to the small size of most parcels, lack of marked boundaries, and spotty access, with most use occurring during the hunting season. Only two small areas within this management area receive active recreation management. These are the Upper Ridge Nature Preserve (120 acres) in Magalia and the Forks of Butte Creek Recreation Area (2,000) acres in Butte Creek Canyon. Both of these areas are managed for BLM through cooperative management agreements by volunteer groups.

The Upper Ridge Nature Preserve contains two self-guided interpretive trails, with a third trail under construction. It receives approximately 1,700 visitor days annually. The Forks of Butte Creek Recreation Area contains over five miles of hiking trails and 30 recreational mineral collecting permit sites. This area receives approximately 4,000 visitor days annually for trail hiking, fishing, camping, sunbathing, picnicking, and recreational mineral collection. Recreational mineral collecting opportunities draw visitors from all over the state to the Forks of Butte Creek Recreation Area. The recreational mineral collection sites are managed directly by the Redding Resource Area.

YOLLA BOLLY

Public land in this management area consists of 115 tracts located in a checkerboard pattern in southwestern Shasta and western Tehama Counties. These scattered tracts total 48,000 acres of public land and 35,280 acres of reserved minerals (see Map 3-9b). Numerous rights-of-way for utilities and access crisscross this management area. Major transportation facilities include Interstate 5, State Route 36, and many Forest Service, county, and private roads. Despite the number of roads in this management area, legal access exists to only about 12% of the public land.

Due to the limited access and lack of significant attractions, recreational use of public land in the management area is light, limited primarily to hunting for deer and upland game. One potential recreation attraction is Beegum Gorge, a nearly 5,000 acre parcel containing Beegum Creek. Beegum Creek is the most significant BLM administered fisheries habitat in the management area. Beegum Creek maintains good flows year round and provides good habitat for resident rainbow trout, as well as a few steelhead and spring run salmon. Most of the gorge is only accessible by foot and there are no BLM facilities or trails. There is a primitive campground immediately upstream from the public land on the Trinity National Forest. Beegum Creek has been recommended for study to determine if it is eligible for inclusion in the Wild and Scenic Rivers System.

In addition to Beegum Creek, nominations for study to determine eligibility for inclusion into the Wild and Scenic Rivers System have been made for segments of Cottonwood Creek. The sections recommended for study are the Middle Fork of Cottonwood Creek (above Beegum Creek confluence), and the South Fork of Cottonwood Creek (above Cold Fork confluence).

Generally this is an area of relatively low cultural sensitivity. Archaeological and historical surveys of public land in this management area have led to the identification of nine archaeological sites. Based upon BLMs ethnographic study there are no known places important to contemporary Native Americans on public land.

The Yolla Bolly Management Area is located in three geologic provinces: along the western side the Klamath Mountains and the Coast Range, and in the central and eastern portions the Great Valley. Current mineral activity consists of small scale placer gold mining and other minerals prospecting. Public land northwest of the Igo-Platina Road, Beegum Gorge, and Tedoc Mountain have the highest concentration of mining claims in the management area.

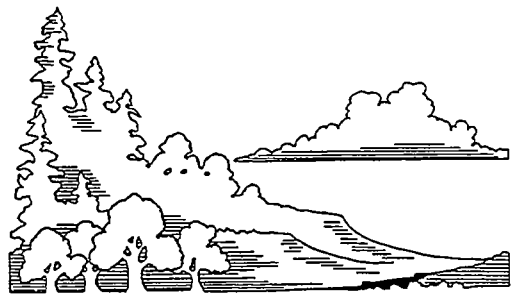
There are currently no oil and gas leases held on public land. There has been no known exploration for oil and gas on public land, although several natural gas fields have been developed in the south-central portion of Tehama County. Regionally, oil and gas exploration has been concentrated in the Sacramento Valley.

With the exception of Valentine Ridge, most of this management area is deer winter range. Valentine Ridge is used as a transition area. There are four deer herds that use this winter range. They are the Thomes Creek herd, Tomhead herd, Beegum herd, and the Tehama resident herd. Public land ownership within the deer range is approximately 10%. In those areas that have burned in recent years (Skinner Mill Fire, controlled burns and small wildfires), browse conditions appear to be good. However, most of the public land winter range is covered with old decadent brush fields that have become unavailable to deer and have lost much of their nutritional value.

There are two special status plant species that are believed to be growing on public land in this management area, adobe lily (Fritillaria pluriflora) and Tracy's sanicle (Sanicula tracyi) and three special status plant species known to be on public land. The three known to be present are Brandegee's eriastum (Eriastrum brandegeae), Indian Valley brodiaea (Brodiaea coronaria ssp. rosea), and peanut sandwort (Minuartia rosei). Also growing on public land is a plant of special concern, the dimorphic snapdragon (Antirrhinum subcordatum). Although not on BLM's special status plant list, the California Native Plant Society lists this snapdragon as a rare plant (threatened or endangered) in California.

Approximately 6,260 acres of public land are contained in 6 grazing leases administered by the Redding Resource Area. These leases represent approximately 370 animal unit months (AUM). One lease is currently classified as Category "I" for intensive. Two leases are classified as Category "M" for maintain. The three remaining leases are classified as Category "C" for custodial.

Regionally, the BLM timber resource in the Yolla Bolly is insignificant (less than 1%). However, it is in high demand as indicated by the high values BLM has historically received for the timber. The Yolla Bolly Management Area has approximately 2,591 acres in the avaiable commercial forest land. The majority of these acres are in the Valentine Ridge, Elkhorn Ridge, and Tedoc Mountain vicinity. The remainder of the acreage is scattered throughout the management area, generally at the higher elevations. The timber type is predominately mixed conifer with a few areas of pure ponderosa pine or pure Douglas-fir. Most of the commercial timber land is classified as site class 3, although a few small stands would be site class 2 or 4. Based on acreage and productivity, the Yolla Bolly Management Area public land could sustain an annual harvest of approximately 440 thousand board feet (440 MBF).



CHAPTER 3

MANAGEMENT ALTERNATIVES, INCLUDING THE PROPOSED ACTION

INTRODUCTION

Five land-use management alternatives, including the preferred alternative or "proposed action", are described in this chapter for each of six management areas. Four land-use management alternatives, including the proposed action, are described for a seventh management area, Sacramento River. This chapter contains a detailed description, therefore, of thirty-four individual management formulas considered in this RMP. The chapter is organized to: define the five land-use management alternatives, explain existing management guidance/decisions which constrain each alternative, describe each land-use management alternative for each management area, and, communicate the rationale for selecting the preferred alternative or proposed action for each management area. Table S-1 in the Summary chapter portrays the mix of preferred alternatives selected as the proposed action for the Redding RMP. Table 3-1 at the end of this chapter provides a summary of the impacts expected through a Resource Area-wide implementation of each land use management alternative. This summary comparison of Resource Area-wide alternatives in Table 3-1 includes the proposed action as well as the five generic alternatives defined below.

ALTERNATIVE DEFINITIONS

The five land-use management alternatives provide an array of realistic management options. Each alternative is consistent with the Federal Land Policy and Management Act (FLPMA) and represents a varying mixture of goals which can be accomplished in each management area under current funding levels. In cases where recommended action(s) can not be funded under existing budget conditions, the text clearly indicates the need for additional funding, e.g. Grass Valley Creek acquisition and rehabilitation. Single-use alternatives were not developed since such alternatives would be inconsistent with the multiple-use mandate and philosophy of BLM. Moreover, it was not necessary to create additional land-use management alternatives unique to a given management area. The five generic land-use management alternatives provided sufficient latitude to address the planning issues (described in Chapter 1) and resource values associated with administration of public lands within each of the seven management areas.

The five generic land-use management alternatives include: No Action, Administrative Adjustment, Enhancement of Natural and Cultural Values, Resource Use with Natural Values Consideration, and Resource Use. The following is an explanation of each land use management alternative:

"NO ACTION"

This land-use management alternative is a continuation of existing management decisions and prescriptions described in the Management Framework Plan Amendment of 1982. These existing decisions, as stated in the land-use allocations, would be brought forward and the prescriptions covered by the Environmental Impact Statement developed as part of this RMP document.

"ADMINISTRATIVE ADJUSTMENT"

In order to improve management efficiency and effectiveness, public land holdings would be consolidated in areas of highest resource value. Decisions under this alternative would provide management direction for transfer of management responsibility, jurisdiction or ownership of public land from the BLM to another entity. Such transfer would be accomplished using one of the following methods (in priority order): dispose of unneeded public land through exchange in order to consolidate public land interests in high resource value areas, transfer public land to other governmental agencies to fulfill that agency's mission, or, dispose of public land to meet expanding community needs.

"ENHANCEMENT OF NATURAL AND CULTURAL VALUES"

Decisions under this alternative would prescribe resource condition objectives and land use allocations which favor the protection or enhancement of natural and/or cultural values of at least local importance. Other uses of public lands would be subordinated and allowed only if the approved actions would have positive or no effects on the identified natural or cultural values. Many areas with regional or state-wide biological importance are identified for acquisition and public stewardship.

"RESOURCE USE WITH NATURAL VALUES CONSIDERATION"

Decisions under this alternative would prescribe resource condition objectives and land use allocations which allow the development of economic resources on much of the public lands, encourage recreational use in regionally important areas, and protect natural (and cultural) values of regional, state, or national importance. Land acquisition is recommended in areas with regionally important recreational opportunities, regional (or better) biological value, or which enhance the manageability of public lands for all uses.

"RESOURCE USE"

The decisions under this alternative would be designed to provide the greatest opportunity for economic return from the utilization of public lands and the resources thereon. Resource utilization would continue to be constrained by law, regulation and policy. Land acquisition is recommended to enhance the management of forest products, facilitate mineral resources development, and benefit commercial recreation opportunities.

MANAGEMENT GUIDANCE AND DECISIONS COMMON TO ALL ALTERNATIVES

Unless stated otherwise in the resource specific sections (e.g. ACCESS AND TRANSPORTATION; AIR QUALITY; ETC.) below, all public lands identified for disposal will be managed as follows until the final disposal action is complete.

1. Protect or maintain the existing condition of the resources.

2. Existing leases, contracts or other authorizations will be continued until specifically canceled or terminated under the terms of the authorizing Code of Federal Regulations sections.

3. No long-term fiscal commitments will be entertained unless it is necessary to protect the existing condition of the resources or to ameliorate deteriorating conditions which adversely affect the marketability of lands identified for disposal.

4. Current land exchanges with signed exchange agreements will continue to be processed through completion, even though the results of the exchange may contradict the proposed plan.

ACCESS AND TRANSPORTATION

The transportation plan for the Redding Resource Area will be amended to reflect the decisions made by this RMP. Specific access routes and transportation developments can not be reasonably identified until all activity level planning is completed subsequent to and consistent with the RMP. The transportation plan will be modified to remove unnecessary roads and trails and add access routes as detailed in the activity plans and, as necessary, project plans.

Since access and transportation requirements are site specific in nature, assessments of environmental impacts will not be considered within this RMP. Similarly, the environmental impacts due to the access needs of other public agencies or the private sector can not be reasonably addressed within this RMP. Consideration of environmental impacts for specific access and transportation developments are, therefore, deferred to future planning efforts by BLM or other agencies as appropriate.

AIR QUALITY

Air quality degradation would be minimized through strict compliance with Federal, state, and local regulations and implementations plans. For example, air quality impacts from prescribed burns are limited by BLM Manual 7723 (Air Quality Maintenance Requirements), which requires a state-approved open burning permit prior to implementation. These impacts would be small in scale and dispersed through the planning area. Increasing off-highway vehicle use in designated areas might accelerate soil erosion and increase dust emissions; however, dust suppression control devices would not be practical. Additional management activities in-

clude monitoring, analysis, and impact mitigation on a project-specific basis, which assure compliance with applicable regulations and implementation plans. In no case are significant adverse impacts to air quality expected under any of the land use management alternatives.

CULTURAL RESOURCES

Prior to approval of any Federal authorization on public lands, the BLM is obligated to comply with the National Historic Preservation Act. Section 106 of the act (as implemented under 36 CFR 800 and a Programmatic Memorandum of Agreement among the California Office of Historic Preservation, the President's Advisory Council on Historic Preservation and BLM) requires identification and full consideration of any historic or archaeological sites located within a project area or on lands identified to transfer to any non-Federal entity. An agreement with the State Lands Commission provides a mechanism for minimizing damages to cultural resources in the conveyance of public lands to the Commission. Consideration of cultural resources requires an evaluation of resource value and susceptibility to direct and indirect impacts. Significant archaeological or historic sites will not be damaged by BLM-authorized undertakings or transferred from Federal jurisdiction without appropriate impact mitigation measures.

Review of a mining notice does not involve discretionary decision-making on the part of the BLM and therefore does not constitute an undertaking as specified in Section 106 of the National Historic Preservation Act of 1966 and is not subject to procedural requirements of 36 CFR 800. However, 43 CFR 3809 specifically provides for the protection of cultural properties by initially prohibiting mining operators from knowingly disturbing or damaging them. The need for a cultural resource field inventory in response to a notice of intent should be determined on the basis of professional judgment and is left to the discretion of the Redding Area Manager. Indirect impacts to cultural resources resulting from improving road access into formerly remote areas are recognized as potentially adverse. Current research will determine if and where these impacts are occurring. Impacts to cultural resource values in the form of artifact breakage or destruction of structural features resulting from vehicle activity associated with prospecting could also occur.

BLM Manual 1623.1 requires that all cultural resources known or expected to occur on public land within the planning area (Redding Resource Area) be managed for their information, public, or conservation values. Furthermore, BLM must identify specific directions which will assist in managing these cultural resources for the stated values. Due to the land ownership changes proposed under various land use management alternatives, decisions regarding specific management objectives for cultural resources are deferred until development of subsequent activity plans.

General management direction applicable to all cultural resources and land use management alternatives include: administrative and physical measures to protect sites, monitoring of known sites on lands in long-term BLM administration, surveillance by law enforcement personnel in problem areas, and use of qualified organizations or the public in cooperative study of cultural resources. Public education, research, the excavation of archaeological resources, and involvement of interested parties (principally American Indians) must conform with the Archaeological Resources Protection Act.

Under the American Indian Religious Freedom Act, it is the policy of the United States to protect and preserve the right of native peoples to believe, express, and exercise their traditional religious beliefs. BLM must conform with this expression of First Amendment rights. Prior to authorizing any surface disturbing action or approval of land uses, BLM solicits appropriate consideration of American Indian concerns including any potential impact to traditional beliefs and heritage values. Analysis of these specific concerns is deferred to preparation of activity plans, project plans, and associated environmental analyses. BLM has, however, solicited American Indian input for consideration in developing land use management alternatives in this RMP and during previous planning efforts.

FIRE MANAGEMENT

Any fire occurring on public lands would be suppressed. Areas of Critical Environmental Concern, Special Recreation Management Areas, Wilderness Areas, Wilderness Study Areas, Wild and Scenic River corridors (study and designated), and certain other public lands will require modified suppression techniques to protect the known values. Modified suppression techniques will be identified in subsequent activity plans for these critical areas.

Prescribed burn plans for hazard reduction and vegetation management activities include appropriate environmental analyses in conformance with the Nation-

al Environmental Policy Act. No specific areas are identified in this RMP and assessment of environmental consequences is deferred to activity and project planning phases.

FOREST AND WOODLAND MANAGEMENT

The Redding Resource Area forest management program is operating under the "Timber Management Environmental Assessment for Sustained Yield Unit 15", referred to as SYU-15. SYU-15 considered four different levels of timber harvest and specific mitigation measures. The analysis concluded that no significant impacts to the natural or human communities would result from the implementation of any of the alternatives (management intensities) except for the impacts on old-growth dependent wildlife species.

The specific timber management criteria (harvest methods, silvicultural systems and mitigation measures) discussed in SYU-15 will remain common to all RMP land use management alternatives for all management areas. The intensity of management may change by management area; however, it will not exceed the management intensity of SYU-15 Alternative 1 (Preferred Alternative) which was selected and implemented in 1981.

The only exceptions to guidance provided by SYU-15 is when the Available Commercial Forest Land (ACFL) is managed for the enhancement of other resources. Two examples of this situation are Owl Habitat Areas (O.H.A.s) which are also referred to as Designated Conservation Areas within the Draft U.S. Fish and Wildlife Service "Recovery Plan", and Wild and Scenic River corridors. This category of management would not eliminate forest management activities in O.H.A.s but such activities would be permitted only to enhance the habitat of the northern spotted owl. Forest management activities within designated or study corridors of the National Wild and Scenic River System would not be allowed to detract from the outstandingly remarkable values which led to their designation or determination of eligibility.

Any impact to the economy (positive or negative) of the local communities caused by the increase or decrease of timber harvest in the RMP alternatives is insignificant. When considered on a regional basis (the Redding Resource Area) this office manages approximately 1.2% of the total commercial forest land base and contributes approximately 0.4% of the total timber harvest. Both figures are considered to be insignificant.

Prior to SYU-15 the Timber Production Capability Classification (TPCC) inventory was conducted to determine which lands were forested. The forested lands were further classified as commercial - non-problem; commercial - restricted; withdrawn; woodlands; and non-commercial. The TPCC inventory indicated a total of 40,227 acres of available commercial forest land referred to as the "timber base". The allowable sale quantity from the timber base was set at 5.5 million board feet. Through recent TPCC inventories 1,076 acres of the original timber base have been determined to be unsuitable for management as commercial timber resulting in an available commercial forest land base of 39,151 acres in the existing (No Action) situation.

Approximately 77,000 acres of woodlands were identified during the TPCC inventory. Management of these lands is generally limited to the harvest of minor forest products such as fuelwood, posts and poles, when such harvest is not in conflict with the management of other resources.

The selection of the proposed action and the implementation of the RMP will have an effect on the available commercial forest land acreage and the associated allowable harvest. Since many decisions cannot be implemented immediately, any increase or reduction in the timber base will occur slowly. As a result the available commercial forest land and the associated allowable harvest will be in flux for several years. For this reason the Resource Management Plan will not establish an allowable harvest level.

Specific impacts due to forest and woodland management practices will be considered, through an Environmental Assessment process, prior to project implementation. Special status species (including the spotted owl) which are dependent on old-growth forests are managed and protected in conformance with the management guidance stated in this chapter under "Special Status Species" and "Spotted owl".

Lands available for "intensive" management of forest products are areas where forest management is the primary use and where other resources or values occur but are not emphasized. "Restricted" management refers to areas where multiple use or other resource values are emphasized but timber harvest occurs. The "enhancement of other uses" category includes forest management activities specifically for the benefit of other resource uses or values. No forest management is planned in the areas classified as "not available". The intensive, restricted, and enhancement of other uses

categories combined constitute the "available commercial forest land" (ACFL) which is the acreage used to calculate an annual allowable harvest. The acreage distribution for each category is shown in Appendix G.

Although the acreage in the "enhancement of other uses" category is included in the ACFL, its contribution to the annual allowable harvest will be minimal due to the 85-95 percent reduction in timber harvest imposed by the severe management restrictions placed on land in that category. Management practices would be determined by the needs of the resources that are to be improved. Some examples would be small patch cuts (3 acres or less) to improve browse or other habitat needs; selected trees could be removed for public safety or to improve the view from a scenic over-look; biologists may prescribe certain stand manipulations to improve spotted owl habitat; salvage may be implemented following catastrophic events such as fire, insect epidemics or landslides.

Available commercial forest land acreage that is designated for disposal in this plan will be classified as "restricted management" and will be managed until transferred from BLM administrative jurisdiction. The restricted management actions on the disposal lands would not permit any long term investment or commitments but would allow actions necessary to protect or maintain current or potential value of the resources. Forest management would be accomplished using temporary easements, limited road construction and harvest methods that will minimize the need for reforestation. These management actions should not diminish the ability of the land to be exchanged. No green (non sanitation/salvage) timber sales would be permitted. Actions that would be allowed include but are not limited to the following:

- pre-commercial thinning

-seedling protection and release

-sanitation/salvage timber harvest

The forest stands being managed under "intensive" would be managed within a rotation that is optimum for timber production for that particular site (approximately 80 to 100 years). Areas managed under "restricted" would be subject to a wide array of biological, visual, cultural and social controls (beyond what is already required by law) and therefore the rotation would be longer than that considered optimum for timber production. This category would be similar to the management defined in SYU-15, Proposed Action, except in the areas designated for disposal which would have the above restrictions applied. Management of those areas classified as "enhancement of other resources" would center around the creation or retention of the characteristics desired for the target species or ecosystem. No timber harvest is planned for those areas classified as "not available".

When forest management is not mentioned in the alternative description as a resource condition objective, timber harvest may occur only for the enhancement of other resources or if not in conflict with the management of natural or cultural values.

Large or extensive clear cuts are not planned. However, some areas may have to be clear cut as a result of fire, insect or disease salvage, or silvicultural requirements. The BLM does not have a policy for a maximum size clear cut. Historically, clear cuts in the Redding Resource Area have been used rarely and have not generally been over 5 acres. Those created for salvage purposes could be larger if needed and if the site specific environmental assessment allowed.

Herbicides are not planned for use in forest management. However, the document does not preclude herbicide use if a specific need arose. Please refer to MANAGEMENT GUIDANCE AND DECISIONS COMMON TO ALL ALTERNATIVES, VEGETATION MANAGEMENT later in this chapter.

HAZARDOUS MATERIALS MANAGEMENT

Hazardous materials management is carried out under the authorities contained in the Resource Conservation and Recovery Act of 1976 (as amended), the Federal Water Pollution Control Act as amended by the Clean Water Act of 1977, the Comprehensive Environmental Response, Conservation, and Liability Act of 1980 as amended by the Superfund Amendments and Re-Authorization Act of 1986.

The U.S. Coast Guard and Environmental Protection Agency have overall responsibility to ensure that spills of oil or hazardous material are properly and adequately abated. All major spills and many other discharges will be handled by one of these agencies. These agencies can and may delegate the authority for spill abatement to other agencies, both State and Federal.

Contingency plans prepared by the BLM State Office and BLM District Office provide updated guidance for handling hazardous materials incidents.

The Redding Resource Area's primary hazardous materials workload consists of cleaning up drug lab dumps, abandoned used oil, chemicals at abandoned mine sites, and various hazardous materials on occupancy trespass sites. These activities will occur in all land-use management alternatives. Public land consolidation under all alternatives should diminish present levels of all types of trespass including hazardous materials dumping on public lands under BLM administration.

HYDROELECTRIC AND WATER STORAGE

Potential waterpower/storage reservoir sites under a land withdrawal will continue to be managed for waterpower values. Exceptions include withdrawals for waterpower or storage on streams which become components of the National Wild and Scenic Rivers System or if public lands are transferred from Federal jurisdiction. In these instances any existing withdrawals will be recommended for revocation.

LANDS AND REALTY

The goal of the lands program is to transform the scattered land base of the Redding Resource Area into consolidated resource management units to meet the needs of public land users. This goal will be pursued primarily through exchange opportunities followed by some Recreation and Public Purposes Act leases and patents. Disposal of small-acreage, low-value parcels will be considered only in some cases to resolve inadvertent trespass or when subject parcels cannot reasonably be exchanged.

Land Transfer

All lands identified for transfer to another agency or qualified organization are for long term stewardship by the receiving entity. These lands are not available for disposal by the receiving entity. The lands will return to BLM for disposal if not administered for long term stewardship.

Land Acquisition

All land acquisitions will be through exchange, purchase or donation. Acquisitions will be from willing sellers for available unimproved property. Available unimproved property is defined in this plan as lands which are willingly offered to the BLM for acquisition and which contain improvements which represent less than 20 percent of the total value of the land. Acquisition of real property, other than easements, by exercising the power of eminent domain (condemnation) will not be used. The acquisition boundaries that are shown on the maps are based upon resource information not on property lines. If only a part of a property is identified for acquisition and the remaining part would leave the owner with an uneconomic remnant, then the BLM will acquire the entire property as required by the Uniform Relocation Assistance and Land Acquisition Policies Act of 1970 (PL 91-646, 84 Stat. 1904 Sec 301(9)). Therefore, there may be some acquisition of property outside of the areas designated on the maps. Conversely, not all property that is within the areas identified will be acquired either because the property is improved or the property owner does not want to sell.

The BLM will not acquire any privately owned lands within the Shasta Valley Wetlands area unless acquisition is supported by the Siskiyou County Board of Supervisors.

Land Tenure Adjustment

All land identified for disposal through exchange, Recreation and Public Purposes Act transfer or sale in this RMP meets the criteria set forth in the Federal Land Policy and Management Act (FLPMA) of 1976.

BLM's ability to dispose of land in this RMP may be constrained by the existence of withdrawals. BLM will not dispose of withdrawn land until the withdrawal designation has been lifted. FLPMA Section 204(K)(1) requires review of all withdrawals affecting public lands. Land that becomes unencumbered through the withdrawal review process will then come under the guidance of decisions made in this RMP.

Currently it is BLM policy not to dispose of public land encumbered with properly recorded mining claims. However, disposal actions under Sections 203 and 206 of FLPMA and the Recreation and Public Purposes Act of June 14, 1926, as amended, may occur if: (1) the mining claims are determined void due to failure by the claimant to comply with Section 314 of FLPMA, 43 USC 1744 (1982) and 43 CFR 3833.2-1; (2) the mining claim is contested and found to be invalid; or (3) a change in current policy allows for the disposal of public land encumbered with mining claims.

Any land identified for disposal through sale or exchange will be evaluated for significant cultural resources, threatened and endangered plants and animals, mineral potential, floodplain/flood hazards, hazardous

waste, and prime or unique farmland, before actual transfer of the land can be considered and acted upon in compliance with the National Environmental Policy Act.

Patent restrictions or conservation easements may be used in certain cases to protect special status species, significant cultural resources or other public interests associated with parcels of land subject to disposal. In cases where protection of these values is doubtful, BLM may abandon the disposal action.

Communication Sites

Communication site applications will continue to be considered on land suitable for disposal until such time as an exchange agreement is signed. On public lands retained or acquired, communication site plans will be developed.

Land Use Authorizations

Land use authorizations (rights-of-way, leases, permits) will continue to be issued on a case-by-case basis and in accordance with decisions established in this RMP. Applications for land use authorizations which reduce the marketability of an exchange parcel will not be authorized.

Rights-of-way will be issued to promote the maximum utilization of existing rights-of-way routes, including joint use whenever possible.

Utility Corridors

Designated corridors include all existing or occupied corridors delineated in the Western Regional Corridor Study of 1986 with the following exceptions:

Avoidance Areas

Avoidance areas include Butte Creek, and portions of the Sacramento River Management Area. The Western Regional Corridor Study, 1986, displays an "un-occupied corridor" which would impact public land in the Sacramento River Management Area. Impacts to the area can be avoided by shifting the corridor slightly to the east of the management area. No additional corridors will be permitted in the Sacramento River Management Area (excepting a two-acre aerial communications site on Inks Ridge); the Trinity River, Klamath River, and Shasta River viewsheds (excepting perpendicular crossings of the rivers); and, Gene Chappie / Shasta Off-Highway Vehicle Area outside of the Western Regional Corridor routes.

Exclusion Areas

Two exclusion areas consist of BLM wilderness areas, i.e. Ishi, and Tunnel Ridge. The Yolla Bolly wilderness study area and all eligible study corridors for the National Wild and Scenic Rivers System with a preliminary classification as "scenic" or "wild" are considered exclusion areas pending the conclusive action of the U.S. Congress.

Recreation and Public Purposes Act (R&PP)

Under the R&PP Act, BLM has authority to lease or patent public land to governmental or nonprofit entities for public parks, building sites, correction centers or for other public purposes. R&PP leases and patents will be issued in accordance with the decisions set forth in this RMP and will be processed under the requirements of the National Environmental Policy Act.

Public Land Withdrawals and Classification

BLM will review existing or proposed withdrawals and classifications in light of RMP decisions. No lands were identified or found suitable under this RMP for agricultural entry.

Existing and planned BLM physical improvements represent expenditures of public money. In an effort to protect these expenditures from destruction by locatable mining, or loss via patenting of mining claims, the following will occur: All BLM improvements (e.g. trails, campgrounds, roads, interpretive sites) existing or planned to be placed on public lands, will be immediately noted on the Master Title Plats as easements or reserved rights belonging to the U.S. Government. These notations will serve as public notice that there are prior existing rights established on the public lands and that any new rights established (e.g. mining claims) will be subject to the noted improvements. Mining activity may not take place without permission from, and compensation to, BLM, when these noted improvements would be impacted by mining activities.

All significant non-linear BLM facilities and developed sites (e.g. campgrounds, fish rearing facilities, day use areas) will be withdrawn from locatable mineral entry to protect capital investments from the adverse effects of mining and loss of Federal ownership in the case of patenting. The areas of withdrawal will vary by alterna-

tive, from the actual physical improvements themselves, to adjoining viewsheds and buffers around the sites.

Within those areas recommended for withdrawal from operation of some or all of the public land laws, including the mineral laws, new acquisitions will be closed to mineral entry.

All withdrawals stated in the land-use management alternatives, effecting closure to mineral entry, are recommended subject to Secretary of the Interior or Congressional approval.

In general, all actions proposed in this RMP not prohibited by specific terms of a withdrawal or classification will be carried out. Actions prohibited by the specific terms of the withdrawal or classification will remain in effect until such withdrawals are revoked or classifications terminated.

LIVESTOCK GRAZING

This program operates under the authority of Section 15 of the Taylor Grazing Act, BLM policies and the Redding Livestock Grazing Management Environmental Impact Statement. This document was approved in 1984 and subsequently implemented to improve or maintain ecological condition for perennial range and maintain or improve forage production on the annual range. Future management of livestock will continue to follow the prescriptions established in this document. Specific guidance from the document includes:

Site specific environmental analyses will be conducted prior to actual construction or treatment of proposed projects. Projects will, whenever possible, be modified to avoid or minimize identified negative impacts.

An analysis of potential effects on rare, threatened or endangered plants and animals will be required for each proposed project. If required, consultation with U.S. Fish and Wildlife Service or California Department of Fish and Game will be initiated. Projects will be modified or abandoned to avoid impacts to officially listed rare, threatened or endangered plants or animals. Projects will also be deleted or modified if approval would result in the listing of any sensitive species as threatened or endangered.

BLM will design livestock grazing and range improvement program to avoid adverse effects on properties included in, or eligible for inclusion in, the National Register of Historic Places, unless it is not prudent or feasible. BLM will consult with the State Historic Preservation Officer for purposes of developing a mutually acceptable mitigation plan when avoidance is not prudent or feasible.

All actions will be in conformance with visual resource management objectives.

All fences will be constructed to meet BLM design specifications.

Soils disturbed by range improvement construction will be reseeded with native and/or approved introduced species as soon as possible, unless it is determined to be unnecessary.

Prescribed burning of portions of large areas will be initiated in different years and will be re-burned on a rotational basis in order to provide varied regrowth stages. Strips of vegetation will be left unburned. Burns will be conducted under conditions that provide desired fire intensity.

Allotment Management Plans will include best management practices as called for in Section 208 of the Clean Water Act and as described in "208 Water Quality Management Report".

Additional management guidance and decisions incorporated into this RMP include determinations on facilities maintenance, lease adjustments and manageability criteria for issuing grazing leases.

Allotment management plans will be developed in cooperation with grazing leases. All interested parties will be given an opportunity to participate in the development of these plans.

Maintenance of structural improvements shall be provided by the user deriving the primary benefit from the improvement.

Livestock leases would be adjusted, if necessary, to reflect decreases in public land acreage available for livestock grazing use within an allotment as a result of land disposal.

In addition to existing guidance, this RMP establishes where domestic livestock grazing may or may not be permitted. No grazing will be authorized in areas closed to grazing under the land use allocations of the selected or prefered land use management alternative. Further reductions of available domestic livestock grazing may

occur through development of subsequent activity plans. Moreover, grazing leases will be established and/or perpetuated under manageability criteria. Manageability is a realistic appraisal of grazing lease applications submitted to the Redding Area Office. Since BLM has a responsibility for sound management practices and must use fiscal resources wisely, grazing lease applications will be screened using the following criteria:

Size of Land Tract and Location

This is simply used as a guideline for preliminary assessment of management potential.

Number of Suitable Acres

Absence of suitable acres (as defined in Appendix A of the Redding Grazing Management Environmental Impact Statement of 1984) immediately places a grazing lease in the non-manageable category. Any acreage above zero makes the decision discretionary.

Number of Animal Unit Months (AUM's)

Less than 20 AUMs most often places a grazing lease in the non-manageable category. Twenty to 100 AUMs are generally considered an indeterminate area where the manageability decision is discretionary and not weighed. Greater than 100 AUMs are considered manageable the majority of the time.

Other Dependency

No grazing lease is considered non-manageable if the operator has demonstrated a dependency on the public land for his or her livelihood.

Tract accessibility

Accessible tracts are generally considered manageable. Inaccessible tracts are discretionary.

Land Tenure Adjustment

In areas where BLM intends to exchange or transfer administration of public lands, new grazing preferences will not be established.

MINERALS

There are numerous Federal laws, regulations and policies, and State of California laws, which govern the development of energy and mineral resources on public land in the Redding Resource Area. Rather than listing every single authorization and regulation which effects mineral development, a summary overview of the way Federal minerals can be developed and the most significant applicable laws and regulations will be discussed.

Rights to minerals on Federal land are obtained by mining claim location, lease, sale or free-use permit, depending upon the mineral and the type of Federal land involved.

General Mining Law of 1872

All metallic minerals, such as gold, silver, copper, and certain non-metallic minerals, such as gypsum, talc, and bentonite, on open unappropriated Federal lands, can be obtained by locating and perfecting mining claims under the General Mining Law of 1872 as amended. Important aspects of this law briefly include the following. "Self initiation" through location of four types of mining claims (lode, placer, millsite, and tunnel site). Self initiation means that all open and unappropriated public lands are available for location of claims and mineral extraction without further government permission. No rents, royalties or compensation are derived by the US Government from mineral extraction. Annual assessment work of at least $100.00 per claim must be performed in order to hold the claim against rival claimants. The owners of valid claims may receive patent (title) to the mineral and surface estates upon payment of $2.50 or $5.00 per acre to the Federal Government and passing of an on-the-ground validity examination. The location of mining claims, exploration and extraction of locatable minerals, and issuance of mineral patents on open public land is not a discretionary action of the BLM. Federal Regulations at 43 CFR parts 3700 and 3800 were issued to implement this act.

Surface Resources Act of 1955 (PL-167)

This act restricts uses on mining claims to those required for prospecting, mining or processing operations and reasonably incident (associated) uses. The Federal government was authorized to manage and dispose of surface resources on mining claims prior to the patent of the claim. This law also defined common varieties of sand, stone, gravel, pumice, pumicite, cinders and clay, and excluded such mineral materials from location under the General Mining Law of 1872. These minerals are now salable under the Materials Act of 1947.

43 CFR 3809 Regulations

Locatable mineral development on the BLM managed public lands is subject to the 43 CFR 3809 Regulations which are authorized by the Federal Land Policy and Management Act of 1976. Three thresholds of development are recognized: casual use, Notice level and Plan of Operations level. Casual use level operations include activities which cause no, or minimal, surface disturbances, such as claim staking, work with hand tools, most suction dredging, and some underground work. Operations in excess of casual use are required to file a "Notice" to the BLM at least 15 days prior to the start of operations. The BLM does not approve or disapprove a properly submitted Notice, but merely reviews the Notice and can inform the miner on how to avoid "unnecessary or undue degradation" to public lands and resources. Mining operations which require Plans of Operations instead of Notices are: surface disturbance in excess of five acres, non-casual use operations in special category areas (wild & scenic river corridors and ACECs), and non-complying miners operating under a Notice. The filing of a Plan of Operation requires that an environmental assessment be prepared by BLM prior to the start of mining. Mitigation measures and reclamation bonding are often required as part of the approval of the Plan. All operations are required to prevent unnecessary or undue degradation to the public lands and resources and to abide by all applicable Federal, State and local laws and regulations.

Materials Act of 1947

This law authorized discretionary disposal from public land and Federal mineral estate of certain common variety minerals such as sand and gravel, stone, clay, pumice and volcanic cinders by sale. These mineral materials are sold at fair market value. Free use of these minerals can be permitted for noncommercial use by government and nonprofit agencies. Federal Regulations found at 43 CFR 3600 further define this act.

Mineral Leasing Act of 1920

This law removed deposits of coal, oil and gas, sodium, phosphate, and oil shale from disposal under the General Mining Law of 1872 and make such deposits subject to a leasing system. The law specifies rental and royalty rates, lease size, and terms for each leasable mineral, and it provides for prospecting permits and competitive bidding for certain deposits. Leasing of minerals under this act is discretionary and the Secretary of Interior is given broad discretion in granting leases and permits. Federal Regulations at 43 CFR 3100 regulate oil and gas leasing; 43 CFR 3400 refers to coal management; and 43 CFR 3500 gives specifics for the management of solid leasable minerals other than coal or oil shale.

Geothermal Steam Act of 1970

This act authorized the leasing of geothermal resources and associated byproducts in public lands through competitive and noncompetitive leasing systems. This law is implemented by Federal Regulations promulgated at 43 CFR 3200. Leasing of geothermal resources is a discretionary action by the Department of Interior and such leases may be subject to any mitigation measures deemed necessary.

REDDING RESOURCE AREA SPECIFICS:

Surface Management of Locatable Mineral

In order to avoid unnecessary or undue degradation, and to ensure the adequate reclamation of impacted public lands and resources, all new and existing locatable mineral activities will be subject to the "43 CFR 3809 Standards for Mining, Construction and Reclamation in the Redding Resource Area" (Appendix E). Some future changes are likely to be made to these standards in conformity with the RMP and regulatory authority. Additional changes to these standards may also occur as a result of the implementation of the California Surface Mining and Reclamation Act of 1975 on public lands by the appropriate State or local lead agencies.

Non-commercial Rock Collection

There have been numerous requests for very small amounts of mineral materials from scattered locations within the Redding Resource Area. Federal Regulations at 43 CFR 8365.1-5(b)(2) allow for the free collection of reasonable amounts of "rock". Rock includes, but is not limited to, sand, gravel, cobbles, boulders, volcanic cinders, pumice, pumicite, and decomposed granite. This collection may be for personal and noncommercial use only. Collection may be made by hand or with hand tools only. One small pick-up truck load (or 1,000 pounds) per year is hereby determined to be a "reasonable amount" in this Resource Area. Collection under this authority is not allowed in developed recreation sites and areas, community pits or where otherwise posted or prohibited. Collectors are required to avoid unnecessary or undue degradation to public lands and associated resources, as defined by 43 CFR 3600.0-5(k)

and will be held responsible for any needed reclamation work.

Leasable Minerals

Unless otherwise noted in this RMP, or prohibited by law or regulation, all Federal geothermal, oil and gas, mineral estates on both public and split estate lands are open to pre- and post-lease exploration, geophysical operations, leasing and development. Standards for exploration and development and in some instances, stipulations which may limit exploration and development, will be imposed when needed. The following stipulation and notices will be added to fluid minerals (geothermal, oil and gas) leases, as needed. The same restrictions placed on mineral leasing also apply to geophysical operations.

No surface occupancy stipulations for future leases of fluid minerals have been identified in the proposed action to protect various identified resources at specific locations. A generic "no surface occupancy" stipulation is shown, which will be modified during lease formulation to reflect the specific resource condition objectives and land use allocations on the effected lands to be leased.

No Surface Occupancy Stipulation

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

For the purpose of: (reason for stipulation).

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

BLM interim management of rivers determined eligible for inclusion in the National Wild and Scenic Rivers System will necessitate that a no surface occupancy stipulation be placed on any mineral lease offered within 1/4 mile of these rivers. The purposes of this stipulation are to protect the outstandingly remarkable values and maintain the river classifications which are identified in Appendix A.

Unless stated otherwise elsewhere in the RMP, all areas to be withdrawn from locatable mineral entry will also have the stipulation of "No Surface Occupancy" placed on any mineral leases issued in these areas.

A processing delay notice for fluid minerals leases will be used to protect sensitive plant species and their habitat from the surface disturbing effects of fluid minerals development. BLM's current knowledge of the location of these is due to a limited, but increasing, inventory base, and a constantly changing list of plant species which are considered sensitive species. This notice will be included in new mineral leases which occur on lands identified as having suitable habitat for these species. A copy of this processing delay notice is shown as follows.

Lease Notice for the Protection of Sensitive Plant Species

The leased lands may support populations of plant species that are candidates for Federal listing as endangered or threatened species or that are considered by BLM to be sensitive species. Before any surface disturbing activity may be authorized, BLM must determine the distribution of any such plant species and the effects of the proposed surface disturbing activity on the plant species. Such information must be collected at the appropriate time of the year to identify and inventory the plant species in question. The required information relative to sensitive plant species may be collected by a botanist employed by the lessee, if approved by the Authorized Officer, but the information must still be collected at the appropriate time of year. Depending on the timing of the lessee's application for development, it may take up to a year for BLM to process the development application. In cases where impacts to sensitive species are anticipated, the Authorized Officer may place restrictions on the lessee's Surface Use Plan of Operation to protect these plants.

A fluid minerals lease notice for the protection of threatened and endangered species will be included on all leases where these species are thought to exist. Current inventory is not sufficient to define all these areas at the present time. A generic copy of this notice is shown as follows.

Lease Notice for the Protection of Threatened and Endangered Species

The leased lands are in an area suitable for the habitat of the (Common Name), (Scientific Name), a (Plant/Animal) species which is Officially Listed/Proposed for Listing) as a(n) (Threatened/Endangered) species. All viable habitat will be identified for the lessee/operator by the Authorized Officer of the (Surface Managing Agency) during the preliminary environmental review of the proposed surface use plan. If the field examination indicates that Threatened and En-

dangered Species habitat is present, then formal consultation with the U.S. Fish and Wildlife Service (see Section 7 of the Endangered Species Act of 1973, as amended) will determine whether or not the proposed activity would jeopardize the continued existence of the species. This consultation may require additional time to process the lessee's/operator's proposal, and may result in restrictions to the proposed operations, including denial of surface disturbance in the Threatened and Endangered Species habitat, or requirements to compensate for Threatened and Endangered Species habitat loss.

When existing mineral leases expire, the affected lands will be subject to the requirements of this RMP for any new exploration, leasing, and development actions.

The leasing of coal in the Redding Resource Area is not considered in the RMP due to the potential environmental impacts of surface mining, potential conflicts with other resources, lack of a positive monetary return to the U.S. Government, incompatible adjoining land uses, apparent lack of public demand, and a lack of a known significant resource base. Any future decision to lease coal will require an RMP amendment.

RECREATION

Management decisions and guidance for recreation management consist of determinations for recreation management objectives, as defined by the Recreation Opportunity Spectrum (ROS) system, withdrawals to protect developed facilities, camping limits, and off-road (motorized) vehicle use designations.

Recreation Opportunity Spectrum

ROS prescriptions will be assigned to all public lands within Special Recreation Management Areas (SRMA) and other areas where recreation is a specific resource condition objective (e.g., Upper Klamath, Forks of Butte Creek, middle Klamath, etc.) ROS management classes will not be prescribed for other public lands within the Resource Area.

Withdrawals

All recreation developments on public lands will be protected through easements to the U.S. or withdrawal from the operation of the public land laws, including the mining laws. The developed sites, facilities, and sufficient surrounding area to protect the use or experience opportunity (for which the facility or development was created) will be recommended for withdrawal.

Camping Limit

Camping on all public lands open to camping within the Redding Resource Area, including developed campgrounds, will be limited to a maximum of fourteen days per calendar year.

Off-Highway Vehicle Designations

Off-highway vehicle use designations will be prescribed for all public lands covered under the plan which will remain under BLM administration. No designations are offered on public lands identified for exchange or administrative transfer.

SOIL RESOURCES

The BLM objectives for soil resources are to prevent impairment of soil productivity due to accelerated soil loss or physical or chemical degradation of the soil resources and to ensure that BLM management actions and objectives are consistent with soil resource capabilities. The authority to implement these objectives is based on an assortment of Federal Acts, Executive Orders and Memoranda of Understanding (MOU). Minimum monitoring standards which include criteria and guidelines for determining where monitoring should be emphasized, as well as methodology, have been established by the Ukiah District Office and are in the document "Resource Monitoring in the Ukiah District - 1988".

The maintenance and improvement of soil cover and productivity would continue to be accomplished through preventive measures and land treatments under all land use management alternatives. Preventive measures would be brought forward in project planning and environmental analyses. Preventive measures typically include the avoidance of high erosion areas, restrictions on type and season of use and closure to certain uses such as forest management, vehicle use, grazing, or mineral development. Land treatments would be identified to heal earth disturbing activities or applied to excessively eroded areas needing stabilization. Land treatments include seeding of grasses and forbs, plantings of cuttings and transplants, wattling and brush layering and matting, land shaping, application of mulches, and the construction of erosion control structures.

SPECIAL STATUS SPECIES

Background

The Endangered Species Act (ESA) of 1973 as amended directs the designation, conservation, and management of officially listed threatened and endangered plants and wildlife and their critical habitats. The management of such species and habitats is non-discretionary and often restrictive in terms of management options.

Although only threatened and endangered species are addressed specifically in the ESA, it is within the overall intent of that act to manage other plants and wildlife so as to minimize the need for additional listings. Congress has indicated its concern for these other species through the referencing of several acts, conventions, and treaties within subsection 2(a) of the ESA. There is an implied commitment to the conservation of all plants and wildlife and their habitats so as to prevent additional listings. From this commitment to unlisted species has arisen the special status species concept.

Policy

It is BLM policy to ensure that the crucial habitats of special status species be managed to minimize the need for listing those species by either the Federal or California State Government in the future (BLM Manual Section 6840). This policy does not necessarily eliminate other uses of special status species' crucial habitats, but consideration of special status species habitats must be included in all decisions affecting the public lands. Where downward trends in population numbers and habitat conditions exist, positive management actions, such as development of Habitat Management Plans, are appropriate. Where project impacts to special status species cannot be avoided, it may be appropriate to mitigate or compensate for those impacts elsewhere within the species' range in California.

Federally listed threatened, endangered, sensitive and State-listed species would be inventoried, monitored, and efforts made to improve habitat for recovery of the species. Reintroduction or additional releases of Federal or State listed species would be enacted after proper compliance with the National Environmental Policy Act and consultation with U.S. Fish and Wildlife Service, California Department of Fish and Game and California Natural Diversity Data Base and any affected parties.

Goal

The goal is to manage the public lands so as to prevent deterioration of special status species' habitat thereby precluding the need for State or Federal listing of those species. This goal includes the following objectives:

A. Recognize certain special status species of plants and wildlife which merit attention in the management of the public lands. Refer to Appendix D for a list of special status species on public lands within the Redding Resource Area.

B. Minimize the decline of those species designated as special status through the mitigation of resource management impacts.

C. Promote the enhancement of special status species through positive management of their habitats and populations.

SPOTTED OWL

Northern spotted owls (Strix occidentalis caurina) are mentioned separately due to their listing as "Threatened" by the U.S. Fish and Wildlife Service. The following management guidance shall apply to BLM approved, authorized, or initiated actions within the range of the northern spotted owl.

The BLM will continue its ongoing inventory of northern spotted owl habitat. Barring unforseen circumstances, BLM intends to complete all necessary field inventories of habitat on public lands in 1993. Inventories will be conducted in the manner prescribed by the Spotted Owl Subcommittee, as depicted in the U.S. Forest Service publication Spotted Owl Inventory and Monitoring Handbook (1988), as amended.

BLM will manage public lands in a manner that is consistent with the State of California's Habitat Conservation Plan and the U.S. Fish and Wildlife Service's Recovery Plan, currently in draft. The intent of these planning efforts is to ensure the continued survival and recovery of this sub-species of owl. The Recovery Plan will serve to guide management of Federal lands within special areas termed "Designated Conservation Areas". BLM has identified specific areas within the Resource Management Plan as Owl Habitat Areas (O.H.A.s), which coincide with the Recovery Plan's "Designated Conservation Areas". O.H.A.s will be managed by the Redding Resource Area BLM to enhance spotted owl habitat, will be identified for transfer under various land

use alternatives under the stipulation that they be managed as Owl Habitat Areas, or will be exchanged for other lands which have high quality or quantity spotted owl habitat.

As mentioned above, the Owl Habitat Areas correspond to the Designated Conservation Areas identified within the Draft Recovery Plan. One potential Owl Habitat Area (O.H.A.) located near Rich Gulch (Trinity County) was not designated within the Resource Management Plan (RMP) due to the Draft status of the Recovery Plan. Designated O.H.A.s within the RMP include the following parcels:

Eastman Gulch in the Trinity Management Area (T. 33 N., R. 8 W., Sections 2,3) 1100 acres.

Iron Dyke in the Klamath Management Area (T. 48 N., R. 8 W., Section 22) 80 acres.

Crater Creek in the Scott Valley Management Area (T. 42 N., R. 7 W., Section 35) 210 acres.

Of the three Owl Habitat Areas mentioned above, two (Crater Creek and Eastman Gulch) are key areas to be assessed within the Environmental Consequences section of this document. The third Owl Habitat Area (Iron Dyke), was not included within the key area analysis because it is identified for transfer to the U.S. Forest Service under all land use management alternatives. The potential Owl Habitat Area (Rich Gulch) is also included as a key area assessed in the Environmental Consequences section.

The Draft Recovery Plan for the northern spotted owl recommends that separate management plans be drafted for each "Designated Conservation Area" or BLM "Owl Habitat Area" (O.H.A.). Until these plans are written, BLM will manage public land within each O.H.A. in a manner consistent with recommendations made in the Recovery Plan. Forested areas within O.H.A.s would be managed for the "enhancement of other resources". This category of management would not eliminate the harvest of trees, or other forest management activities, but such activities would be permitted only to enhance the habitat of the northern spotted owl. Some of the management practices that will be used to protect and enhance the spotted owl and it's habitat include: allowing no disturbing activities within 1/2 mile of an existing activity center of a pair of spotted owls; enacting seasonal closures on activities that could disturb spotted owls during the breeding season; enhancing habitat through silvicultural prescriptions which may enhance the old growth, uneven age characteristics of a stand; converting denuded (non-forested)areas into healthy forested stands; creating large standing snags through tree girdling and ensuring the presence of down logs.

VEGETATION MANAGEMENT

The California State Office of BLM has prepared the California Vegetation Management Final Environmental Impact Statement (FEIS) of 1988. This FEIS was prepared in order to comply with a Ninth Circuit Court ruling that a "worst case analysis" must be prepared prior to herbicide use on public land. Besides simply addressing chemicals, other methods of vegetation manipulation which might be used in meeting objectives of BLM land use plans were addressed in the FEIS.

The decision of the FEIS, dated November 7, 1988, allows for the consideration of herbicides as well as the use of manual, mechanical and burning methods for vegetation control treatments. The decision also requires that before any vegetation treatment can be undertaken, a site specific environmental assessment (EA) will be prepared and public involvement will occur in accordance with Council on Environmental Quality regulations. In applying herbicides, BLM will follow the environmental protection measures outlined in the FEIS or more restrictive measures outlined in the site specific EA. The California Vegetation Management Final Environmental Impact Statement and the associated Record of Decision are available for review at the Redding Resource Area Office.

Vegetation management will occur as a secondary benefit or impact in many BLM activities such as grazing, timber harvest, wetland construction, fire fighting, mining and special status species management. The impacts or benefits to vegetation will either be insignificant or will be addressed in the site specific EA for the parent action.

A Desired Plant Community (DPC) has been developed for the Sacramento River Management Area and has been included in Appendix B. Other DPC's will be developed as specific activity plans are designed for the remainder of the Redding Resource Area.

VISUAL RESOURCES

All BLM management actions must conform with the objectives of the assigned Visual Resource Management (VRM) Class. BLM will ensure that Bureau approved or authorized actions meet these long term objectives. VRM prescriptions, however, will be limited

to only those areas assigned VRM Class I and Class II. Prescriptions will not be assigned to areas where lower visual resource management classes have been determined. Visual resource management within designated wilderness and wilderness study areas must conform with the protection of wilderness values including scenic quality.

WATER QUALITY

The BLM objective for water quality is to ensure that all waters on public land meet or exceed Federal and State water quality standards. Generally, BLM deals with non-point sources of pollution, which are addressed in Section 208 of the Federal Water Pollution Control Act Amendments of 1972 (PL-92-500) as amended by the Water Quality Act of 1987 (PL 100-4). The California State Water Resources Control Board has regulatory responsibility for water quality through its Regional Boards (Central Valley and North Coast within the Redding Resource Area). Additionally, the State may develop agreements with agencies like BLM for administration of water quality issues on the lands they administer. BLM coordinates with the Regional Boards to address water quality issues.

Monitoring is conducted using the minimum monitoring standards established by the Ukiah District in the document "Resource Monitoring in the Ukiah District-1988". It contains the criteria and guidelines for determining where monitoring should be emphasized and the methodology.

Impacts to water quality are prevented or reduced through the application of specific mitigative measures identified in project planning and environmental review. Where feasible, watershed improvement projects would be implemented to increase ground cover and ultimately reduce erosion, sediment yield and other water quality contaminants from public land.

WILD AND SCENIC RIVERS

An inventory of rivers and streams within the Redding Resource Area was conducted to determine their eligibility for inclusion in the National Wild and Scenic Rivers System (Appendix A). Streams determined to be eligible for inclusion in this system have been classified and all public land within 1/4 mile of normal high water will be managed to protect the outstandingly remarkable values and free flowing character which led to their determination of eligibility. Under the No Action land-use management alternative, no consideration of Wild and Scenic Rivers was made.

The Trinity and lower Klamath Rivers are existing components of the National Wild and Scenic River System. Specific comprehensive river management plans will be written for them, incorporating the decisions made in this RMP and existing resource specific management plans.

If Congress designates any of the below mentioned streams as components of the National Wild and Scenic River System, the BLM will consider acquisition of available, unimproved private land within the designated corridors.

Forested areas on public land within designated corridors or within 1/4 mile of streams determined eligible for inclusion in the National Wild and Scenic River System will be managed in a manner that will not detract from the outstandingly remarkable values which led to their designation or determination of eligibility. These forested areas would be managed under the classification of "enhancement of other resources".

The following synopsis provides the preliminary classification(s) for each study stream determined as eligible for inclusion in the National Wild and Scenic Rivers System in all land-use management alternatives except No Action.

Battle Creek

Battle Creek (South Fork) between Ponderosa Way Bridge and Manton Road Bridge is classified as RECREATIONAL. The segment between Manton Road Bridge and 1/4 mile upstream of Coleman powerhouse is classified as SCENIC. The segment between 1/4 mile above Coleman powerhouse and Jellys Ferry Road Bridge is classified as RECREATIONAL. Between Jellys Ferry Road Bridge and the Sacramento River, Battle Creek is classified as SCENIC.

Bear Creek

Bear Creek from the State Highway 44 bridge upstream to the east side of Section 26 is classified as SCENIC. The remaining upstream portion is WILD.

Beegum Creek

Beegum Creek between the Trinity National Forest boundary and Highway 36 is classified as WILD.

Big Chico Creek

Big Chico Creek - Minnehaha Mine parcel (T.24 N., R.3 E., Section 8, SE1/4) is classified as RECREATIONAL. Remainder of middle segment is WILD.

Butte Creek

Butte Creek between its confluence with the West Branch of Butte Creek and the Centerville Bridge is classified as SCENIC.

Canyon Creek

The U.S. Forest Service has determined that Canyon Creek, between the U.S. Forest Service boundary and the confluence with the Trinity River, is eligible and is classified as RECREATIONAL.

Clear Creek

Clear Creek between the boundary of the Whiskeytown Unit of the Whiskeytown-Shasta-Trinity National Recreation Area and the Clear Creek Road Bridge is classified as SCENIC.

Jenny Creek

During their National Wild and Scenic Rivers study, the Medford District BLM found the California portion of Jenny Creek to be eligible for inclusion in the National Wild and Scenic River System and classified it preliminarily as SCENIC.

Klamath River

The Klamath River above Copco Reservoir has been determined to be eligible and suitable for inclusion in the National Wild and Scenic River System as SCENIC.

North Fork Cottonwood Creek

North Fork Cottonwood Creek between Misslebeck Dam and Platina Highway Bridge is classified as SCENIC.

Middle Fork Cottonwood Creek

Middle Fork Cottonwood Creek between the Trinity National Forest boundary and Little Bear Gulch is classified as RECREATIONAL. This creek between Little Bear Gulch and Platina Road (near Hundred Dollar Gulch) is classified as WILD.

South Fork Cottonwood Creek

South Fork Cottonwood Creek between the National Forest boundary and Maple Creek is classified as WILD. Between Maple Creek and Cooks Flat this stream is classified as SCENIC.

Deer Creek

Deer Creek between the boundary of the Ishi Wilderness and the Deer Creek Irrigation Ditch is classified as WILD.

Mill Creek

Mill Creek between the Lassen National Forest boundary and the gaging station is T. 25 N., R. 1 W., Section 6, is classified as WILD.

Paynes Creek

Paynes Creek between the gas pipeline near Highway 36 and the Sacramento River is classified as SCENIC.

Sacramento River

The Sacramento River between Balls Ferry Road Bridge and 1/2 mile below Jellys Ferry Road Bridge is classified as RECREATIONAL. Between 1/2 mile below Jellys Ferry Road Bridge and 1/2 mile above Bend Bridge, the river is classified as SCENIC. The river is classified as RECREATIONAL between 1/2 mile above Bend Bridge and Paynes Creek. Between Paynes Creek and the gaging station below Sevenmile Creek, the river is classified as WILD.

Shasta River

The Shasta River between the State Highway 263 bridge below Yreka Creek and the Klamath River is classified as RECREATIONAL.

Studies addressing the suitability of including these study corridors into the National Wild and Scenic Rivers System have been deferred due to BLM budgetary and personnel constraints and until other local, State, and Federal agencies with responsibility in these streams can join in cooperative studies. Criteria used to recommend these deferrals and establish the above preliminary classifications are included in Appendix A of this RMP.

WILDERNESS

No new determinations regarding inclusion of public lands within designated Wilderness Areas are made in this RMP. Portions of two designated Wilderness Areas (Ishi and Tunnel Ridge) remain constant through all land use management alternatives. The existing Memorandum of Understanding between BLM and the U.S. Forest Service covering both the Ishi and Trinity Alps Wilderness areas will remain in full force and effect unless BLM portions of these wildernesses are transferred to U.S. Forest Service jurisdiction. One Wilderness Study Area (Yolla Bolly) was recommended as unsuited for wilderness designation in the 1987 California Section 202 Wilderness Study Area (Wilderness Recommendations) Draft Environmental Impact Statement prepared by BLM. Under all land use management alternatives, the 640 acres of public land will be managed to protect any wilderness-related values pending final action by the Congress of the United States.

WILDLIFE AND FISHERIES HABITAT MANAGEMENT

All public lands in the Redding Resource Area are considered for enhancement and protection of the wildlife habitat resource to varying degrees in all land use management alternatives. Monitoring will continue in those areas where specific habitat types are crucial to the continued vitality of a wildlife population (e.g., fawning areas, raptor nesting areas, salmonid rearing areas, etc.) and in areas covered by existing (or proposed) Habitat Management Plans.

The following plans have been incorporated into this RMP through the development of resource condition objectives, land-use management alternative development, and/or the incorporation of BLM policy: Upper Sacramento River Fisheries and Riparian Restoration Plan (State of California, 1989), various Deer Herd Management Plans (California Department of Fish and Game), Fish and Wildlife 2000 (BLM Washington Office and California Office; and the North American Waterfowl Management Plan (U.S. Fish and Wildlife Service, 1986).

This RMP does not contain quantifiable resource condition objectives for wildlife and fisheries resources due to the tremendous changes of public ownership recommended in the various land-use management alternatives. Resource condition objectives with measurable goals will be specified in subsequent activity plans. Refined geographic focus and additional data will allow quantification of objectives only at that level of natural resource planning.

Releases and re-introduction of native wildlife species could be authorized by the BLM State Director, following proper compliance with the National Environmental Policy Act and coordination with the California Department of Fish and Game.

The BLM is an active participant in the Trinity River Task Force for the purpose of implementing the Trinity River Basin Fish and Wildlife Restoration Act.

MANAGEMENT ALTERNATIVE DESCRIPTIONS BY MANAGEMENT AREA

(Includes Rationale for Proposed Action)

This section details each land use management alternative developed for each management area. The order of management area description parallels the order in CHAPTER 2 - AFFECTED ENVIRONMENT, i.e., Scott Valley, Klamath, Trinity, Shasta, Sacramento River, Ishi, and Yolla Bolly. Maps which portray each land-use management alternative are found in a map packet included with this document. Cadastral locations, i.e., township and range, on these maps and in the accompanying management alternative descriptions are related to the Mount Diablo Baseline and Meridian. The order of land-use management alternative description is the same for each management area, i.e., No Action, Administrative Adjustment, Enhancement of Natural and Cultural Values, Resource Use with Natural Values Consideration, and Resource Use.

Each land-use management alternative description consists of three individual planning elements:

Resource Condition Objectives are the goals established for each management alternative. They condition allocations, actions and unforseen future proposals to conform with these goals. These objectives are listed in descending priority order, i.e., subordinate resource condition objectives must conform with the resource condition objectives listed previously.

Land-Use Allocations prescribe general management categories (e.g., visual resources and recreation opportunity classes), specific limitations to full resource use (e.g., leasable mineral restrictions), or formal designations (e.g., ACEC, wild and scenic river corridor, etc.)

which are needed to meet the resource condition objectives and/or to comply with Federal law.

Management Actions are implementation measures which ensure that the resource condition objectives are met and alert the public and BLM to specific follow-up actions which are anticipated to implement the land-use management alternatives. This planning element is not a comprehensive list of all actions necessary over the life of this RMP. It is, however, a list of actions which reasonably have programming and budgetary implications for BLM. Management actions are procedural steps needed to carry out BLM administrative responsibilities in conformance with this RMP. They are not management decisions.

SCOTT VALLEY MANAGEMENT AREA

MANAGEMENT AREA: **SCOTT VALLEY**

ALTERNATIVE: **NO ACTION**

MAP (in packet): **MAP 3-1a**

I. RESOURCE CONDITION OBJECTIVES

A. Maintain the supply of forest products from all available commercial forest lands.

B. Maintain existing range conditions.

C. Maintain and improve deer winter range habitat conditions.

D. Maintain and improve, if possible, overall resource management efficiency within the management area through land exchanges on an opportunity basis.

II. LAND USE ALLOCATIONS

A. Maintain the existing level of timber harvest on 7,200 acres of available commercial forest lands. See Appendix G for acreage assigned to the various forestry management categories.

B. Fuel wood is available from all forested lands.

C. All suitable rangelands are open to grazing lease.

D. Maintain the withdrawal for the Gazelle Mountain administrative site (40 acres for a look-out in T. 41 N., R. 7 W., Section 8, NE1/4 of SE1/4), and the Callahan refuse transfer site (2.07 acres R&PP lease to Siskiyou County in T. 40 N., R. 8 W., Sections 7 and 17).

E. All lands are open to application under the R&PP Act on a case specific basis.

F. Lands are available for dispersed recreation.

G. Fourteen parcels of land encompassing approximately 1040 acres are available for disposal via sale.

H. All Federal interests not noted above in II D-G are available for exchange for higher public values elsewhere on a case-by-case basis.

III. MANAGEMENT ACTIONS

A. Maintain a sustained yield harvest from the available commercial forest lands.

B. Continue revocation of the withdrawal for the privately owned Oro Fino townsite.

C. Pursue the existing exchange opportunities with Moffett Creek Ranch and other major private land owners within the management area.

D. Work with Siskiyou County to resolve long-term public administration of the Callahan refuse transfer site.

E. Cooperate with the California Department of Fish and Game in development of a Deer Habitat Management Plan to crush and burn decadent brushland within the management area.

MANAGEMENT AREA: **SCOTT VALLEY**

ALTERNATIVE: **ADMINISTRATIVE ADJUSTMENT** (proposed action)

MAP (in packet): **Map 3-1b**

I. RESOURCE CONDITION OBJECTIVES

A. Quartz Hill (under cooperative management)

Same as the ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

1. Maintain the existing scenic quality of BLM administered lands.

2. Ensure the long term protection of the deer winter range.

3. Protect raptors, including spotted owls, within the area.

4. Protect cultural resource values.

5. Provide semi-primitive recreation opportunities.

B. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of public land interests within the Scott Valley management area.

2.. Enhance resource management efficiency and the public service mission of local, state, and Federal agencies via transfer of jurisdiction of specific public lands from BLM.

II. LAND USE ALLOCATIONS

A. Quartz Hill

1. Allow management, for the stated objectives, by a qualified conservation organization under a cooperative management agreement. Quartz Hill would be available for disposal, via exchange, if no acceptable agreement is in effect within five years.

B. Remainder of Management Area

1. Transfer jurisdiction of public land within T. 45 N., R. 8 W., Section 26 and T.42N., R.7W., Section 35 (for management of the northern spotted owl) to the Klamath National Forest.

2. Transfer via the Recreation and Public Purposes Act (R&PP) or exchange to the California Department of Corrections the parcel of public land east of McAdam Creek adjacent to the Deadwood Conservation Camp within T. 44 N., R. 9 W., Section 12.

3. Transfer via R&PP or exchange to a qualified agency or group the administration of the Cedar Gulch Cemetery within T. 43 N., R. 7 W., Section 18, NE1/4.

4. Transfer via R&PP or exchange to Siskiyou County the Callahan refuse transfer site in T. 40 N., R. 8 W., Sections 7 and 17.

5. All public land interests not noted above in II A-B (1-4) are available for exchange.

6. All available commercial forest lands will be managed as "restricted" until transferred from BLM administration.

III. MANAGEMENT ACTIONS

A. Develop agreement and/or legislative amendment to modify the boundary of the Klamath National Forest to include the public land within T. 45 N., R. 8 W., Section 26 and T.42 N., R.7 W., Section 35.

B. Contact California Department of Corrections, Siskiyou County, and qualified public agencies respectively to acquire management responsibility of parcels noted in II B. 2-4 above.

C. Revoke the withdrawals for the Gazelle Mountain administrative site (T. 41 N., R. 7 W., Section 8, NE1/4 of SE1/4) and the privately owned Oro Fino townsite.

D. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for exchange or administrative transfer.

E. Pursue the development of a cooperative management agreement with a qualified organization for the management of Quartz Hill.

MANAGEMENT AREA: **SCOTT VALLEY**

ALTERNATIVE: **ENHANCEMENT OF NATURAL AND CULTURAL VALUES**

MAP (in packet): **MAP 3-2a**

I. RESOURCE CONDITION OBJECTIVES

A. Quartz Hill

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

1. Maintain the existing scenic quality of BLM administered lands.

2. Ensure the long term protection of the deer winter range habitat.

3. Protect raptors, including spotted owls, within the area.

4. Protect cultural resource values.

5. Provide semi-primitive recreation opportunities.

B. Noyes Valley

1. Improve the condition of northern spotted owl habitat.

2. Improve the condition of the deer winter range habitat.

C. Remainder of Management Area

1. Enhance resource management efficiency and the public service mission of local, state, and federal agencies via transfer of jurisdiction of specific public lands from BLM.

2. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of certain public lands within the management area.

II. LAND USE ALLOCATIONS

A. Quartz Hill

1. Manage as Visual Resource Management (VRM) Class II.

2. Manage as Semi-Primitive Motorized

3. Vehicles are limited to designated roads which may be closed between November 15 and April 15 to protect the wintering deer herd.

4. Offer lands for mineral leasing with no surface disturbing actions permitted between November 15 and April 15.

5. Acquire unimproved available private lands within the area to enhance ability to meet the management objectives.

6. Manage forest products to enhance natural values. See Appendix G for acreage assigned to the various management categories.

B. Noyes Valley

1. Vehicles are limited to designated roads which may be closed between November 15 and April 15 to protect the wintering deer herd.

2. Offer lands for mineral leasing with no surface disturbing actions permitted between November 15 and April 15.

3. Consolidate and increase, if feasible, public ownership within the area.

4. Maintain the withdrawal for the Gazelle Mountain administrative site (T. 41 N., R. 7 W., Section 8, NE1/4 of SE1/4.

5. Manage forest lands to enhance natural values. See Appendix G for acreage assigned to the various management categories.

C. Remainder of Management Area

1. Transfer jurisdiction of public land within T. 45 N., R. 8 W., Section 26 M.D.M. to the Klamath National Forest.

2. Transfer via the Recreation and Public Purposes Act (R&PP) or exchange to the California Department of Corrections the parcel of public land east of McAdam Creek adjacent to Deadwood Conservation Camp within T. 44 N., R. 9 W., Section 12.

3. Transfer via R&PP or exchange to Siskiyou County the Callahan refuse transfer site in T. 40 N., R. 8 W., Sections 7 and 17.

4. Transfer via R&PP or exchange to a qualified public agency or group the administration of Cedar Gulch Cemetery within T. 43 N., R. 7 W., Section 18 NE1/4.

5. Manage the public land in Crater Creek (T. 48 N., R. 8 W., Section 22) as an Owl Habitat Area in cooperation with the Klamath National Forest.

6. All public land interests not noted above in II A-C (1-5) are available for exchange.

III. MANAGEMENT ACTIONS

A. Develop an integrated resource activity plan for Quartz Hill to identify specific land acquisition needs, appropriate roads and trails which enhance semi-primitive recreation opportunities and sensitive resources which need permanent or intermittent protection from permitted activities.

B. Develop an integrated resource activity plan for the Noyes Valley deer winter range to identify specific land acquisition needs, roads necessary for public and administrative access, and sensitive resources which need permanent or intermittent protection

C. Publish Federal Register notice regarding vehicle designations.

D. Develop agreement and/or legislative amendment to modify the boundary of the Klamath National Forest to include the public land within T. 45 N., R. 8 W., Section 26.

E. Contact California Department of Corrections, Siskiyou County, and qualified public agencies respectively to acquire management responsibility of parcels noted in II C(2-4) above.

F. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for exchange or administrative transfer.

G. Revoke the withdrawal for the privately owned Oro Fino townsite.

H. Develop a Memorandum of Understanding with the Klamath National Forest for the cooperative management of the Crater Creek Owl Habitat Area.

MANAGEMENT AREA: **SCOTT VALLEY**

ALTERNATIVE: **RESOURCE USE WITH NATURAL VALUES CONSIDERATION**

MAP (in packet): **MAP 3-2b**

I. RESOURCE CONDITION OBJECTIVES

A. Quartz Hill

1. Maintain the existing scenic quality of BLM administered lands.

2. Maintain or improve the long-term sustained yield of forest products from the available commercial forest lands.

3. Emphasize locatable mineral development.

4. Protect raptors, including spotted owls, that nest within the area.

5. Maintain the existing deer winter range habitat.

6. Maintain the existing semi-primitive recreational opportunities.

B. Noyes Valley/Duzel Creek

1. Maintain or improve the long-term sustained yield of forest products from the available commercial forest lands.

2. Protect raptors, including spotted owls, that nest within the area.

3. Maintain the existing condition of the deer winter range habitat.

4. Maintain the existing condition of the suitable rangelands.

5. Improve the condition of riparian vegetation within Duzel and Noyes Valley Creeks.

C. Remainder of Management Area

1. Enhance resource management efficiency and the public service mission of local, state, and federal agencies via transfer of jurisdiction of specific public lands from BLM.

2.Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of certain public lands within the management area.

II. LAND USE ALLOCATIONS

A. Quartz Hill

1. Manage as VRM Class III.

2. Manage as Roaded Natural.

3. Vehicles are limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd.

4. Offer lands for mineral leasing with no surface disturbing actions permitted between November 15 and April 15.

5. Acquire unimproved lands to facilitate long-term forestry management.

6. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

B. Noyes Valley/Duzel Creek

1. Acquire unimproved lands to facilitate long term forestry management.

2. Vehicles are limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd.

3. Offer lands for mineral leasing with no surface disturbing actions permitted between November 15 and April 15.

C. Remainder of Management Area

1. Transfer jurisdiction of public land within T. 45 N., R. 8 W., Section 26 to the Klamath National Forest.

2. Transfer via the Recreation and Public Purposes Act (R&PP) or exchange to the California Department of Corrections the parcel of public land east of McAdam Creek adjacent to Deadwood Conservation Camp within T. 44 N., R. 9 W., Section 12.

3. Transfer via R&PP or exchange to Siskiyou County the Callahan refuse transfer site in T. 40 N., R. 8 W., Sections 7 and 17.

4. Transfer via R&PP or exchange to a qualified public agency or group the administration of Cedar Gulch Cemetery within T. 43 N., R. 7 W., Section 18, NE1/4.

5. Manage the public land in Crater Creek (T. 48 N., R. 8 W., Section 22) as an Owl Habitat Area in cooperation with the Klamath National Forest.

6. All public land interests not noted above in II A-C (1-5) are available for exchange.

III. MANAGEMENT ACTIONS

A. Develop an integrated resource activity plan for Quartz Hill to identify specific land acquisition needs, appropriate roads and trails which enhance semi-private recreation opportunities and sensitive resources, i.e. raptor nesting and critical habitat, which need intermittent or permanent protection from permitted actions.

B. Develop an integrated resource activity plan for Noyes Valley/Duzel Creek to identify specific land acquisition needs and specific areas needs to enhance long term forestry management, maintain the deer winter range habitat, improve the condition of the riparian vegetation, and allow for necessary public and administrative access.

C. Publish Federal Register notice regarding vehicle designations.

D. Develop agreement and/or legislative amendment to modify the boundary of the Klamath National Forest to include the public land within T. 45 N., R. 8 W., Sections 26.

E. Contact California Department of Corrections, Siskiyou County, and qualified public agencies respectively to acquire management responsibility of parcels noted in II C(2-4) above.

F. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for exchange or administrative transfer.

G. Revoke the withdrawals for the Gazelle Mountain administrative site (T. 41 N., R. 7 W., Section 8, NE1/4 of SE1/4) and the privately owned Oro Fino townsite.

H. Maintain or improve the long-term sustained yield of forest products from the available commercial forest lands.

I. Develop a Memorandum of Understanding with the Klamath National Forest for the cooperative management of the Crater Creek Owl Habitat Area.

MANAGEMENT AREA: **SCOTT VALLEY**

ALTERNATIVE: **RESOURCE USE**

MAP (in packet): **MAP 3-3a**

I. RESOURCE CONDITION OBJECTIVES

A. Quartz Hill

1. Maintain mineral development opportunities.

2. Maximize the long-term sustained yield of forest products from the available commercial forest lands.

3. Protect raptors, including spotted owls, that nest within the area.

4. Maintain existing deer winter range habitat condition within the area.

5. Allow dispersed recreation.

B. Noyes Valley/Duzel Creek

1. Maximize the long-term sustained yield of forest products from the available commercial forest lands.

2. Enhance opportunities to explore and develop locatable mineral production.

3. Improve riparian habitat of Duzel Creek and upper Noyes Valley Creek.

4. Maintain existing deer winter range habitat condition within the area.

5. Protect raptors, including spotted owls, within the area.

C. Remainder of Management Area

1. Enhance resource management efficiency and the public service mission of local, state, and federal agencies via transfer of jurisdiction of specific public lands from BLM.

2. Enhance the ability to acquire high value resource lands with the Redding Resource Area by disposal of certain public lands within the management area.

II. LAND USE ALLOCATIONS

A. Quartz Hill

1. Manage public land as VRM Class III.

2. Manage as Roaded Natural.

3. Vehicles are limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd.

4. Acquire available unimproved land to facilitate mineral development and long-term forest management objectives.

5. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management classes.

B. Noyes Valley/Duzel Creek

1. Acquire available unimproved land to facilate long-term forest management and mineral development.

2. Vehicles are limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd.

3. Manage as VRM Class III.

4. The majority of the available commercial forest land would be managed as intensive. See Appendix G for acreage assigned to the various management categories.

C. Remainder of Management Area

1. Vehicles are limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd.

2. Transfer jurisdiction of public land within T. 45 N., R. 8 W., Section 26 to the Klamath National Forest.

3. Transfer via the Recreation and Public Purposes Act (R&PP) or exchange to the California Department of Corrections the parcel of public lands east of McAdam Creek adjacent to Deadwood Conservation Camp within T. 44 N., R. 9 W., Section 12.

4. Transfer via R&PP or exchange to Siskiyou County the Callahan refuse transfer site in T. 40 N., R. 8 W., Section 7 and 17 .

5. Transfer via R&PP or exchange to a qualified agency or group the administration of Cedar Gulch Cemetery within T. 43 N., R. 7 W., Section 18, NE1/4.

6. All Federal interests not noted above in I A-C(1-5) are available for exchange.

7. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acres assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Develop an integrated resource activity plan for Quartz Hill to designate vehicle roads and identify sensitive resources, i.e., raptor nesting areas, critical habitat, and cultural sites which need intermittent or permanent protection.

B. Develop an integrated resource activity plan for Noyes Valley/Duzel Creek to identify specific land acquisition needs, prescribe specific management needs to maximize the long-term supply forest products, delineate the stretches of Duzel and Noyes Valley creek in need of long-term protection, identify areas suitable for brush treatment to improve deer winter range habitat, discuss administrative access needs, and designate vehicle roads.

C. Publish Federal Register notice regarding vehicle designations.

D. Develop agreement and/or legislative amendment to modify the boundary of the Klamath National Forest to include the public land within T. 45 N., R. 8 W., Section 26.

E. Contact California Department of Corrections, Siskiyou County, and qualified organizations respectively to acquire management responsibility of parcels noted in II C-E above.

F. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for exchange, sale, or administrative transfer.

G. Revoke the withdrawals for the Gazelle Mountain administrative site (T. 41 N., R. 7 W., Section 8, NE1/4 of SE1/4) and the privately owned Oro Fino townsite.

H. Maintain or improve the long-term sustained yield of forest products from the available commercial forest lands.

MANAGEMENT AREA: SCOTT VALLEY

RATIONALE FOR THE PROPOSED ACTION (ADMINISTRATIVE ADJUSTMENT ALTERNATIVE)

MAP (in packet): Map 3-1b

BLM administers a relatively small amount of scattered public land within this management area. The region, however, is dominated by public lands principally under the jurisdiction of the U.S. Forest Service. Current planning efforts by the Shasta and Klamath National Forests indicate that the lower elevations surrounding Scott Valley are not an area of long-term Forest Service stewardship interest. Therefore, bulk jurisdictional transfer to the U.S. Forest Service of the responsibility of BLM administered public lands would serve little long-term public interest.

The resource values within the management area have limited local public value. Public demand and current uses of these randomly placed parcels is light due to the low resource values and the generally poor public access associated with these residual public lands. A few local citizens were concerned about the potential loss of public land in the area. The principle resource use identified by these citizens was hunting. The vast majority of BLM administered public lands (approximately 75%) have no legal access. Many of the surrounding private landowners have blocked off physical access to these scattered parcels and do not support legal access through BLM easement acquisition.

The notable exception to the general lack of public use and access is Quartz Hill. Of the approximately 2,135 acres of public land within the Quartz Hill area, the majority (1,930 acres) consists of a contiguous irregular block spanning the hill. The irregular boundary of the public land poses a number of trespass problems. Public access, however, is quite good to this largest BLM administered parcel in the Scott Valley management

area. The local public has expressed an interest in cooperative management of the Quartz Hill area to continue local public use and protect locally important resource values. BLM has a sincere interest in promoting local stewardship initiatives particularly in cases where the public lands are at some distance from administrative sites (in this case more than two hours). A five year period following the Record of Decision for this RMP will provide sufficient time to establish a collaborative effort between BLM and the local citizenry. If this collaboration is not feasible, however, then BLM can use these lands to acquire higher public values elsewhere.

Deer winter range is a general resource management concern. However, little impact to the quality of the deer winter range is anticipated in the reasonably foreseeable future. Private land ownership within the deer winter range is dominated by large ranches. The current Siskiyou County General Plan zones the deer winter range for natural habitat protection, agriculture, rangeland, and timber production uses. These relatively low intensity uses coupled with large individual ownerships, conservation easements by California Department of Fish and Game, and development permit requirements of Siskiyou County help ensure the protection of deer winter range habitat during the life-span of this RMP. Federal ownership and administration of public lands within this portion of the deer winter range or the management area is, therefore, not critical.

The Scott Valley Management Area contains 2,172 acres of northern spotted owl habitat within three key areas of public land, i.e. Quartz Hill, Crater Creek, and the Scott Valley Block. The vast majority of this key habitat is classified as "suitable" based solely on the presence of minimum forest composition standards mentioned in Chapter 4 - Impacts to Spotted Owl. The BLM administered habitat is, however, widely scattered and the productive use of this habitat by northern spotted owls is very limited. The habitat represents a fraction of the known and occupied habitat within the central portion of Siskiyou County, principally within the Klamath National Forest. In one instance, Crater Creek, BLM has recommended transfer of public land to the U.S. Forest Service to provide for long-term protection and efficient management of northern spotted owl habitat. The threat to BLM administered habitat is mainly through forest management practices if transferred to the private sector via exchange. Impacts due to intensive land development are not expected based on existing and projected land uses within the key habitat areas. The BLM can better use this habitat of arguable value to aid in the acquisition of privately-owned spotted owl habitat of known importance within Trinity County or areas with critical biological value in Siskiyou County, e.g. the Shasta Valley wetlands, lower Shasta River, Horseshoe Ranch, Jenny Creek, and portions of the Klamath River. As a fail-safe mechanism, a biological opinion of the U.S. Fish and Wildlife Service may preclude the disposal of specific public land parcels during the life span of this RMP. In summary, the potential biological benefits of this trade-off outweigh the potential negative impacts of BLM's worst case scenario.

Three land use management alternatives recommended consolidation of public lands and substantial acquisition of private lands within Noyes Valley / Duzel Creek core area of the Scott Valley management area. BLM administered public lands represent a minority land interest within the area. Majority land ownership is held by four privately owned ranches. None of these ranches are available for acquisition by public agencies and are not expected to be available for purchase during the life span of this RMP. Moreover, the existing public lands have limited overall potential for special species habitat and exhibit generally low sensitivity for cultural resources. The dispersed available commercial forest land and suitable range can be administered in private ownership more efficiently to supply forest products and livestock forage for the benefits of the local population. The disposal of public lands via exchange in this area will also eliminate the trespass problems now encountered by the private landowners while reducing BLM's overall administrative costs. Moreover, these public lands represent a good opportunity for BLM to exchange for private lands with higher public use potential and/or higher resource values elsewhere.

KLAMATH MANAGEMENT AREA

MANAGEMENT AREA: **KLAMATH**

ALTERNATIVE: **NO ACTION**

MAP (in packet): **MAP 3-1a**

I. RESOURCE CONDITION OBJECTIVES

A. Horseshoe Ranch

1. Improve the existing deer winter range habitat in cooperation with California Department of Fish and Game.

2. Maintain the supply of forest products from productive forest land if not in conflict with deer winter range management.

3. Allow natural restoration of riparian zones to Class I.

B. Shasta River

1. Maintain Chinook salmon spawning in the lower Shasta River.

2. Restore riparian vegetation to Class I.

C. Klamath River

1. Maintain water-oriented recreation opportunities along the river in cooperation with Oregon BLM, Pacific Power and Light, and the State of California.

2. Improve the condition of the riparian zone to Class II on anadromous fish streams.

3. Preserve and interpret the Osburger Gulch site.

4. Maintain the scenic quality in the river condition upstream of Copco.

D. Remainder of Management Area

1. Maintain and improve the supply of forest products from available commercial forest land.

2. Maintain existing range conditions.

3. Maintain and improve, if feasible, deer winter range habitat.

4. Improve resource management efficiency within the management area through land exchanges on an opportunity basis.

5. Improve the steelhead spawning habitat in lower Dry Creek.

6. Protect the spotted owl habitat near Willow Creek Mountain in cooperation with the Klamath National Forest.

7. Protect waterfowl habitat in the Butte Valley Wildlife Area in conjunction with California Department of Fish and Game.

II. LAND USE ALLOCATIONS

A. Horseshoe Ranch

1. Area is closed to motorized vehicle use.

2. All Animal Unit Months (AUMs) are available for wildlife.

3. Additional AUMs may be allocated to livestock if such use improves the deer winter range habitat.

4. Acquire one section of unimproved private land (T. 48 N., R. 6 W., Section 27).

5. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

B. Shasta River

1. The riparian zone is closed to livestock grazing.

2. Vehicles are limited to designated roads and trails.

3. All existing public land within 100 feet above normal high water along both sides of Shasta River are designated as an Area of Critical Environmental Concern.

4. Developed weirs and adjoining 50 foot circumference are closed to any disturbance.

5. Acquire privately owned lands along the Shasta River from the confluence of Yreka Creek to the confluence with the Klamath River.

C. Klamath River

1. Manage as Roaded Natural.

2. 55 acres near the mouths of Osburger and Carson gulches (T. 46 N., R. 6 W., Sec 5, NE1/4 of SW1/4 of NE1/4, E1/2 of SW1/4 of SW1/4 of NE1/4 and T. 47 N., R. 6 W., Sec 32, SE1/4 of SE1/4) are segregated from mineral entry under a Classification for Multiple Use classification.

3. 40 acres at Carson Gulch (T. 46 N., R. 6 W., Sec 5, NW1/4 of SE1/4) are withdrawn form mineral entry by BLM for recreational developments.

4. Klamath River above Copco Lake is managed as VRM Class II and considered eligible for inclusion as a component of the National Wild and Scenic Rivers Systems. All public land within 1/4 mile of the normal high water mark will be managed in a manner which will not impair the outstandingly remarkable values and consistent with a preliminary classification as "Scenic".

5. Vehicle use is limited to designated roads and trails.

6. Acquire privately owned land along the Klamath River between the confluence with Shasta River and the boundary of the Klamath National Forest.

7. The area is open to livestock grazing.

D. Remainder of Management Area

1. Public lands are classified as Semi-Primitive Motorized.

2. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various categories.

3. 200 acres at Lennox Rock (T. 48 N., R. 4 W., Section 34) are withdrawn from mineral entry by BLM for recreational developments.

4. The BLM-administered portion of Lower Dry Creek is closed to livestock grazing.

5. 160 acres near Willow Creek Mountain (T. 46 N., R. 4 W., NE1/4 section 36) are administered by the Klamath National Forest in conjunction with a Forest Service spotted owl habitat area.

6. Maintain the withdrawal for the Hornbrook refuse transfer site (20 acres R&PP lease to Siskiyou County in T. 47 N., R. 6 W., Section 29, N1/2 of SE1/4 of NE1/4.

7. 1025 acres near Hawkinsville (T. 45 N., R. 7 W., Sections 2, 3, 10, and 11) are withdrawn from mineral entry under a small tract classification.

8. 80 acres within the Butte Valley Wildlife Area (T. 47 N., R. 2 W., Section 28) are administered by the California Department of Fish and Game.

9. Thirty-one parcels of land encompassing approximately 3,100 acres are available for disposal via sale.

10. All Federal interests not noted above in II A-D (3-8) may be available via exchange on a case by case basis for higher public values elsewhere.

III. MANAGEMENT ACTIONS

A. Horseshoe Ranch

1. Continue implementation of existing Habitat Management Plan in cooperation with California Department of Fish and Game.

2. Acquire one section of private land (T. 48 N., R. 6 W., Section 27)

B. Shasta River

1. Continue periodic monitoring and maintenance of developed fish weirs.

2. Maintain condition of facilities developed to exclude livestock grazing from the riparian zone.

3. Continue annual monitoring of the condition of the riparian zone.

4. Contact private landowners regarding cooperative management and/or land purchase to protect the Chinook spawning areas.

C. Klamath River

1. Amend the existing river management plan for the Klamath River above Copco to reflect the Final Eligibility and Suitability Report for the Upper Klamath Wild and Scenic River Study and the recommendations of the Klamath Falls Resource Management Plan.

2. Acquire the privately owned land in T. 46 N., R. 7 W., Section 18.

3. Terminate the classifications on lands near Carson and Osburger gulches noted above in II C(2).

4. Withdraw the Osburger historic site (5 acres) from mineral entry and maintain or improve the existing condition of the historic and prehistoric features.

5. Revoke the withdrawal at Carson Gulch noted above in II C(3).

6. Continue periodic monitoring of the riparian zone to assess the improvement to Class II on public land. Recommend additional measures if necessary to protect the riparian zone.

D. Remainder of Management Area

1. Continue cooperative management of the 160 acres noted above in II D(5) to protect spotted owl habitat and 80 acres noted in II D(8) to protect waterfowl habitat in conjunction with the Klamath National Forest and the California Department of Fish and Game, respectively. Update the memoranda of understanding if necessary.

2. Continue the annual monitoring of steelhead spawning success along lower Dry Creek. Maintain the existing management facilities, i.e., gabions and fences, as needed.

3. Work with Siskiyou County to resolve long-term public administration of the Hornbrook refuse transfer site.

4. Maintain a long-term sustained yield harvest from the available commercial forest lands.

5. Terminate the small tract classification on lands near Hawkinsville as noted above in II D(7) and revoke the withdrawal on the 200 acres at Lennox Rock as noted above in II D(3).

MANAGEMENT AREA: **KLAMATH**

ALTERNATIVE: **ADMINISTRATIVE ADJUSTMENT**

MAP (in packet): **MAP 3-1b**

I. RESOURCE CONDITION OBJECTIVES

A. Horseshoe Ranch

1. Improve the existing public-administered deer winter range habitat and afford long-term protection for additional privately owned deer winter range habitat in cooperation with California Department of Fish and Game, Oregon Department of Fish and Wildlife and Medford District BLM.

2. Allow long-term natural restoration of riparian zones to Class II or better.

3. Offer semi-primitive non-motorized recreation opportunities.

B. Shasta River Canyon

1. Improve Chinook salmon spawning in the lower Shasta River.

2. Restore riparian vegetation to Class II or better

3. Increase water-oriented recreation opportunities.

C. Upper Klamath River (above Copco)

1. Maintain water-oriented recreation opportunities along the river in cooperation with Lakeview District BLM.

2. Maintain the condition of the riparian zone at Class II or better on public land.

3. Maintain the scenic quality of the river corridor.

D. Mid-Klamath River (below Iron Gate Dam)

1. Maintain and enhance if possible the water oriented recreation opportunities in cooperation with the state of California.

2. Improve the condition of the riparian zone below river mile 181 to Class II or better.

E. Jenny Creek

1. Maintain resident population levels of the Jenny Creek sucker (Catostomus rimiculus ssp.) and, if present, redband trout (Salmo sp.).

2. Afford long-term protection to the nesting Bald Eagle

F. Dry Creek

1. Maintain the steelhead spawning habitat in lower Dry Creek.

G. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of

scattered public land interests within the Klamath management area.

2. Enhance the resource management efficiency and public service mission of local, state, and Federal agencies via transfer of specific public lands from BLM.

3. Afford opportunities to meet specific community development needs for Federally recognized Indian tribes.

II. LAND USE ALLOCATIONS

A. Horseshoe Ranch

1. Area is closed to motorized vehicles.

2. Manage as Semi-Primitive Motorized.

3. All Animal Unit Months (AUMs) are available for wildlife.

4. Acquire available, unimproved privately owned land between Interstate 5 and the existing public lands. Acquire the eastern one-half of Section 20, T. 48 N., R. 5 W.

5. Seek administrative transfer of three parcels totaling 720 acres from the Klamath National Forest.

6. Area is closed to mineral leasing.

7. The available commercial forest land would be managed for the enhancement of other resources.

B. Shasta River Canyon

1. The riparian zone is closed to livestock grazing.

2. Manage as Roaded Natural.

3. Manage as VRM Class II.

4. Vehicles are limited to designated roads and trails.

5. Designate all land within 100 feet above normal high water along both sides of Shasta River as an Area of Critical Environmental Concern (ACEC). Withdraw the ACEC from mineral entry and allow recreational mineral collection through a permit system.

6. Acquire available, unimproved privately owned lands within the Shasta River Canyon with priority given to unimproved lands within the ACEC and the Wild and Scenic River study corridor.

C. Upper Klamath River (above Copco)

1. Manage as Roaded Natural.

2. Manage as VRM Class II.

3. The Klamath River is considered eligible for inclusion in the National Wild and Scenic Rivers System. All public land in the corridor bounded by the northern canyon rim and within 1/4 mile of normal high water along the southern bank will be managed in a manner which will not impair the outstandingly remarkable values and consistent with a preliminary classification as "Scenic".

4. Vehicle use is limited to designated roads and trails.

5. Public land within the corridor is closed to livestock grazing.

6. Offer lands for mineral leasing with no surface occupancy.

7. Mineral material disposals are not allowed within the corridor.

8. Acquire unimproved private lands within the corridor.

9. Seek administrative transfer of five parcels totaling 520 acres from the Klamath National Forest.

D. Mid Klamath River (below Iron Gate Dam)

1. Establish a corridor for this segment of the Klamath River between Iron Gate Reservoir (River Mile 190) and the Klamath River canyon (River Mile 181) which uses the nearest paralleling human made linear feature, i.e. railroad/road, or one-eighth mile from normal high water, whichever is least. Permit no actions on public land which would impair the quality or condition of this "Recreational" component of the National Wild and Scenic Rivers System.

2. Establish a corridor for this segment of the Klamath River between River Mile 181 and the Klamath National Forest boundary (approximately 400 feet downstream of the mouth of Ash Creek) that does not exceed 1/4 mile above the normal high water mark of this "Recreational" component of the National Wild and Scenic Rivers System.

a. Manage as Roaded Natural.

b. Manage as VRM II.

c. Vehicle use is limited to designated roads and trails.

d. Public land within the riparian zone is closed to livestock grazing.

e. Offer land for mineral leasing with no surface occupancy.

f. Mineral material disposals are not allowed within the corridor

g. Acquire available, unimproved private lands within the corridor and develop cooperative management agreements as necessary with other landowners.

E. Jenny Creek

1. Classify 480 acres (W1/2 & W1/2 of E1/2, Section 24, T. 48 N., R. 5 W.) as Semi-Primitive Non-Motorized.

2. Area is closed to motorized vehicle use.

F. Dry Creek

1. Area is closed to motorized vehicles excepting the Siskiyou County maintained Copco Road.

2. Area is closed to livestock grazing.

3. Mineral material disposals are permitted only if such actions enhance the steelhead spawning potential within Dry Creek.

G. Remainder of Management Area

1. Transfer jurisdiction of nineteen parcels of public land encompassing approximately 3650 acres to the Klamath and Shasta National Forests. These parcels include: agricultural inspection station (T. 39 N., R. 1 W., NW1/4 of NW1/4, Section 4), Dry Lake (T. 44 N., R. 1 W., SE1/4 of SE1/4, Section 31), Goosenest (T. 45 N., R. 4 W., Section 36), Pluto Cave to enhance recreation and protect natural/cultural values (T. 43 N., R. 4 W., Section 22), Willow Creek to include in spotted owl habitat conservation area (T. 46 N., R. 4 W., NE1/4, Section 36), Iron Dyke Owl Habitat Area (T. 48 N., R. 8 W., S1/2 of SE1/4, Section 22), McGavin Peak (T. 47 N., R. 2 W., Sections 4, 6, 8, 18, 20 and T. 48 N., R. 2 W., Section 32), and Butte Valley Land Use Project (T. 47 N., R. 1 W., Sections 14 and 22).

2. Transfer via exchange, the Recreation and Public Purpose Act (R&PP) or cooperative agreement administrative responsibility of 80 acres within the Butte Valley Wildlife Area (T. 47 N., R. 2 W., Section 28) to the California Department of Fish and Game.

3. Transfer via exchange, R&PP, or sale to the County of Siskiyou the Hornbrook refuse transfer site (T. 47 N., R. 6 W., Section 29, N1/2 of SE1/4 of NE1/4).

4. Transfer via R&PP or exchange to the City of Yreka, the County of Siskiyou, or other qualified local agency the Humbug Gulch parcel encompassing approximately 140 acres. Offer for exchange to any party after two years from the approval of the Final RMP.

5. 1025 acres near Hawkinsville (T. 45 N., R. 7 W., Sections 2, 3, 10 and 11) are suitable for community development purposes as a reservation for Federally recognized Indian tribe(s). If congressional sponsorship is unavailable, offer for exchange to any party after five years from the approval of the Final RMP.

6. All Federal interests not noted above in II A-G (1-5) are available for exchange.

7. The majority of available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Amend the existing Habitat Management Plan (HMP) and Memorandum of Understanding with California Department of Fish and Game for Horseshoe Ranch. The amended HMP will identify specific land acquisition needs, establish the desired plant community within each ecological site necessary to favor deer and, possibly, elk use. The HMP will also identify recreational facilities and access necessary to promote a non-motorized, semi-primitive recreation experience.

B. Develop an integrated resource activity plan for the Klamath River below River Mile 181 and the Shasta River Canyon which identifies high priority land acquisitions, designates appropriate roads and trails for recreational access, identifies management facility needs to protect the ACEC and riparian zone, and cooperative actions with adjacent landowners.

C. Amend the existing river management plan for the Klamath River above Copco to reflect the Final Eligibility and Suitability Report for the Upper Klamath Wild and Scenic River Study and the recommendations of the Klamath Falls Resource Management Plan.

D. Continue annual monitoring of steelhead spawning success along lower Dry Creek. Maintain the existing management facilities, i.e. gabions and fences, as needed.

E. Develop agreement and/or legislative amendment to modify the boundary of the Klamath National Forest to include the public land noted in II G(1) above and to exclude the Forest Service-administered public land noted above in II A (5) and C(9).

F. Contact County of Siskiyou, City of Yreka and other qualified public agencies to acquire management responsibility of parcels noted above in II G(3,4).

G. Contact California Department of Fish and Game to acquire permanent management responsibility for the parcel of public land noted above in II G (2).

H. Publish Federal Register notice(s) regarding vehicle designations, amended Shasta River ACEC boundary, and mineral withdrawals.

I. Revoke existing withdrawals and terminate classifications noted in the NO ACTION alternative, i.e. Carson Gulch, Osburger Gulch, Lennox Rock, and Hawkinsville.

J. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for exchange or administrative transfer.

K. Maintain a long-term sustained yield harvest from the available commercial forest lands while they remain under BLM administration.

L. Contact the State of California and the County of Siskiyou regarding development of a report addressing the suitability of Shasta River for inclusion in the National Wild and Scenic Rivers System.

MANAGEMENT AREA: **KLAMATH**

ALTERNATIVE: **ENHANCEMENT OF NATURAL AND CULTURAL VALUES**

MAP (in packet): **MAP 3-2a**

I. RESOURCE CONDITION OBJECTIVES

A. Horseshoe Ranch

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

B. Shasta and Klamath Rivers Canyon

1. Improve Chinook salmon spawning in the lower Shasta River.

2. Restore riparian vegetation to Class II or better.

3. Enhance non-motorized recreation opportunities.

4. Protect historic and prehistoric resources within the area.

5. Provide access for Native American Indian traditionalists to Black Mountain. Protect the peak from surface-disturbing actions.

6. Protect the native plant communities within the area including Greene's Mariposa Lily (Calochortus greenei) and Peck's Lomatium (Lomatium peckianum).

7. Enhance the long-term condition of the deer winter range habitat.

C. Upper Klamath River

1. Maintain the scenic quality of the river corridor and Panther Canyon.

2. Improve the condition of riparian vegetation to Class II or better.

3. Protect raptors nesting in the area.

4. Enhance the long-term condition of the deer habitat.

5. Protect the cultural resources of the river corridor.

6. Improve semi-primitive non-motorized recreation opportunities.

D. Jenny Creek

1. Afford long-term protection to the nesting Bald Eagle and other raptors within the watershed of Jenny Creek.

2. Improve the native species fisheries in lower Jenny Creek.

3. Maintain the existing scenic quality.

4. Enhance traditional Native American Indian uses.

E. Mid Klamath River

1. Maintain existing public lands within the designated Wild and Scenic River corridor in present conditions.

F. Dry and Brush Creeks

1. Improve the steelhead spawning habitat in the public-owned lower reaches of these creeks.

G. Shasta Grass Lake

1. Provide long-term protection and enhancement of native wetlands.

2. Enhance waterfowl reproduction.

3. Protect the habitat of dependent species including tiger salamander, sandhill crane, and Bald Eagle.

4. Enhance opportunities for viewing wildlife.

H. Shasta Valley Wetlands

1. Provide long-term protection and enhancement of native wetlands.

2. Enhance waterfowl production.

3. Improve water quality in the Shasta River basin.

4. Enhance the native fisheries of Big Springs Creek, the Shasta River and it's tributaries.

5. Enhance terrestrial wildlife habitat.

6. Provide semi-primitive non-motorized recreation opportunities.

I. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of scattered public land interests within the Klamath management area.

2. Enhance the resource management efficiency and public service mission of local, state, and Federal agencies via transfer of specific public lands from BLM.

II. LAND USE ALLOCATIONS

A. Horseshoe Ranch

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

B. Shasta and Klamath Rivers Canyon

1. Designate all public land in the Shasta River Canyon below the Highway 263 bridge crossing below Yreka Creek to the confluence with the Klamath River bounded on the east by Interstate 5 and within 1/4 mile west of the normal high water mark as an ACEC.

2. Establish a corridor for this segment of the Klamath River between River Mile 181 and the Klamath National Forest boundary (approximately 400 feet downstream of the mouth of Ash Creek) that does not exceed 1/4 mile above the normal high water mark of this "Recreational" component of the National Wild and Scenic Rivers System.

3. Manage the ACEC and the Klamath River corridor as Roaded Natural. Manage the remainder of the canyon watershed as Semi-Primitive Motorized.

4. Vehicle use is limited to designated roads and trails.

5. Manage future developments outside of public highway rights-of-way as VRM Class II.

6. Withdraw the ACEC, the Klamath River corridor and all public land in Sections 2, 3, 10, and 11, T. 46 N., R. 6 W., (Black Mountain) from mineral entry and offer lands for mineral leasing with no surface occupancy. Balance of the area is available for mineral leasing with no surface disturbing actions permitted between November 15 and April 15 to protect the wintering deer herd.

7. The area is closed livestock grazing.

8. Acquire privately owned lands within the area with priority given (in descending order) to unimproved lands within the ACEC, Klamath River corridor, Black Mountain, and remainder.

C. Upper Klamath River

1. The Klamath River is considered eligible for inclusion in the National Wild and Scenic Rivers System. All public land in the corridor bounded by the northern canyon rim and within 1/4 mile of normal high water along the southern bank will be managed in a manner which will not impair the outstanding remarkable values and consistent with a preliminary classification as "Scenic".

2. Manage area as semi-primitive motorized.

3. Vehicle use is limited to designated roads and trails.

4. Manage area as VRM Class II.

5. The river corridor is closed to livestock grazing.

6. Withdraw the river corridor from mineral entry.

7. Offer public lands within the river corridor for mineral leasing with no surface occupancy. Balance of the area is available for mineral leasing with no surface disturbing actions permitted between November 15 and April 15 to protect the wintering deer herd.

8. Mineral material disposals are not allowed within the river corridor.

9. Seek administrative transfer of nine parcels totaling approximately 9,800 acres from the Klamath National Forest.

10. Acquire unimproved privately owned lands within the area and/or develop cooperative management agreements with Pacific Power and Light. Priorities for acquisition in descending order are the river corridor, raptor nesting habitat, and important upland game habitat.

D. Jenny Creek

1. Designate the area as a Research Natural Area/ACEC.

2. Manage as semi-primitive motorized.

3. Vehicle use is limited to designated roads and trails.

4. Withdraw area from the available commercial forest land.

5. Withdraw area from mineral entry.

6. Offer for mineral leasing with no surface occupancy.

7. Acquire privately owned lands with priority given to lands within the canyon of Jenny Creek.

8. Close the Research Natural Area/ACEC to livestock grazing.

E. Mid-Klamath River.

1. Establish a corridor for this segment of the Klamath River between Iron Gate Reservoir (River Mile 190) and the Klamath River Canyon (River Mile 181) which uses the nearest paralleling human made linear feature, i.e. road, railroad, or one-eighth mile from normal high water, whichever is least. Permit no actions on public land which would impair the quality or condition of this "Recreational" component of the National Wild and Scenic Rivers System.

F. Dry and Brush Creeks

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

G. Shasta Grass Lake

1. Area is closed to vehicle use.

2. Withdraw the area from mineral entry.

3. Offer for mineral leasing with no surface occupancy.

4. Area is closed to livestock grazing.

H. Shasta Valley Wetlands

1. Classify as semi-primitive motorized.

2. Manage as VRM Class II.

3. Vehicle use is limited to designated roads and trails.

4. Mineral material disposals are permitted only if such actions enhance the long-term condition of riparian vegetation and the native fisheries habitat.

5. Offer for mineral leasing with no surface occupancy within 300 feet of wetland habitat.

6. Area is closed to livestock grazing.

7. Acquire available unimproved lands within the area if acquisition is supported by the Siskiyou County Board

of Supervisors. Priority is given to land containing existing or historic native wetlands.

I. Remainder of Management Area

1. Transfer jurisdiction of ten parcels of public land encompassing approximately 2120 acres to the Klamath National Forest. The parcels include: agricultural inspection station, dry lake, Goosenest, Willow Creek to include in spotted owl habitat conservation area, Pluto Cave to enhance recreation and conserve natural / cultural values, Iron Dyke Owl Habitat Area, and Butte Valley Land Use Project (refer to the ADMINISTRATIVE ADJUSTMENT ALTERNATIVE for cadastral locations).

2. Transfer via exchange, the Recreation and Public Purposes Act (R&PP), or cooperative agreement administrative responsibility of 80 acres within the Butte Valley Wildlife Area (T. 47 N., R. 2 W., Section 28) to the California Department of Fish and Game.

3. Transfer via exchange, R&PP, or sale to the County of Siskiyou the Hornbrook refuse transfer site (T. 47 N., R. 6 W., Section 29, N1/2 of SE1/4 of NE1/4).

4. Transfer via R&PP or exchange to the City of Yreka, the County of Siskiyou or other qualified local agency the Humbug Gulch parcel encompassing approximately 140 acres. Offer for exchange to any party after two years from the approval of the Final RMP.

5. All Federal interests not noted above in II A-I (1-4) are available for exchange.

6. The available commercial forest land would be managed for the enhancement of other resource values. See Appendix G for acreage assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

B. Develop an integrated resource activity plan for the Klamath River below River Mile 181 and the Shasta River Canyon which identifies high priority land acquisitions, designates appropriate roads and trails for recreational and Native American access, identifies management facility needs to protect the ACEC, riparian zone, sensitive cultural resources, sensitive native plants species and critical habitat areas. The activity plan will also identify cooperative actions needed with adjoining landowners.

C. Replace the existing river management plan for the Klamath River above Copco with an integrated resource management plan for the river corridor and the adjoining Panther Canyon/Shovel Creek drainage. The activity plan will reflect the Final Eligibility and Suitability Report for the Upper Klamath Wild and Scenic River Study and the recommendations of the Klamath Falls Resource Management Plan. The activity plan will delineate management zones, desired plant communities and necessary management facilities to enhance the riparian zone, improve the long-term condition of the deer winter range, and facilitate semi-primitive recreation opportunities.

D. Develop a Research Natural Area/ACEC management plan for Jenny Creek which identifies specific land acquisitions and/or cooperative agreements necessary to protect the nesting Bald Eagle and native fisheries. Coordinate this activity plan with the Ashland Area Office of the Medford District BLM. The plan will identify roads and trails open for administrative, public, and user access. The plan will also identify specific management facilities, e.g. barriers and signing, to preclude motorized vehicle access in the sensitive area within or adjacent to Jenny Creek canyon.

E. Continue annual monitoring of steelhead spawning success along lower Dry Creek. Maintain the existing management facilities, i.e. gabions and fences, as needed. Amend the existing HMP to include similar management actions for lower Brush Creek.

F. Develop an acquisition and Habitat Management Plan for Shasta Grass Lake in cooperation with California Department of Fish and Game, the Klamath National Forest, and the California Department of Transportation.

G. Develop an integrated resource management plan for the Shasta Valley Wetlands if BLM acquires available privately-owned unimproved lands within the area. The activity plan will be developed in cooperation with California Department of Fish and Game, California Department of Transportation, the County of Siskiyou and interested organizations/individuals. The plan will identify acquisition/cooperative management needs, a network of management facilities to protect the native wetlands, wildlife productivity targets, water quality base and target standards, and public access needs which do not adversely impact the native biota.

H. Develop agreement and/or legislative amendment to modify the boundary of the Klamath National Forest to include the public land noted in II I(1) above and to

exclude the Forest Service-administered land noted above in II A and C(9).

I. Contact County of Siskiyou, City of Yreka and other qualified public agencies to acquire management responsibility of parcels noted above in II I(3,4).

J. Contact California Department of Fish and Game to acquire permanent management responsibility for the parcel of public land noted above in II I(2).

K. Publish Federal Register notice(s) regarding vehicle designations, amended Shasta River ACEC boundary, and mineral withdrawals.

L. Revoke existing withdrawals and terminate classifications noted in the NO ACTION alternative, i.e. Carson Gulch, Osburger Gulch, Lennox Rock, and Hawkinsville.

M. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for exchange, sale, or administrative transfer.

N. Contact the State of California and the County of Siskiyou regarding development of a report addressing the suitability of Shasta River for inclusion in the National Wild and Scenic Rivers System.

MANAGEMENT AREA: **KLAMATH**

ALTERNATIVE: **RESOURCE USE WITH NATURAL VALUES CONSIDERATION (proposed action)**

MAP (in packet): **MAP 3-2b**

I. RESOURCE CONDITION OBJECTIVES

A. Horseshoe Ranch

1. Improve the existing public administered deer winter range habitat and afford long-term protection for additional privately owned deer winter range habitat in cooperation with California Department of Fish and Game, Oregon Department of Fish and Wildlife and Ashland Resource Area BLM.

2. Allow long-term natural restoration of riparian zones to Class II or better.

3. Offer semi-primitive non-motorized recreation opportunities.

B. Shasta and Klamath Rivers Canyon

1. Improve Chinook salmon spawning in the Lower Shasta River.

2. Restore riparian vegetation to Class II or better.

3. Enhance non-motorized recreation opportunities.

4. Protect historic and prehistoric resources within the area.

5. Enhance access for traditional uses of the rivers by American Indians.

C. Upper Klamath River

1. Maintain the scenic quality of the river corridor.

2. Improve the condition of riparian vegetation to Class II or better.

3. Protect the cultural resources of the river corridor.

4. Improve semi-primitive non-motorized recreation opportunities.

D. Jenny Creek

1. Protect special status species, i.e. Bald Eagle and native fish species, within Jenny Creek canyon.

2. Maintain the existing scenic quality.

3. Enhance traditional Native American Indian use opportunities.

4. Allow long-term natural restoration of riparian zones to class II or better.

E. Mid-Klamath River

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

1. Maintain existing public lands within the designated Wild and Scenic River corridor in present conditions.

F. Dry Creek

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

1. Improve the steelhead spawning habitat in lower Dry Creek.

G. Shasta Valley Wetlands

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVES.

1. Provide long-term protection and enhancement of native wetlands.

2. Enhance waterfowl production.

3. Improve water quality in the Shasta River basin.

4. Enhance the native fisheries of Parks Creek, Big Springs Creek, and the Shasta River.

5. Enhance terrestrial wildlife habitat.

6. Provide semi-primitive non-motorized recreation opportunities.

7. Provide for domestic livestock grazing.

H. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of scattered public land interests within the Klamath management area.

2. Enhance the resource management efficiency and public service mission of local, state, and Federal agencies via transfer of specific public lands from BLM.

II. LAND USE ALLOCATIONS

A. Horseshoe Ranch

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

1. Area is closed to motorized vehicles.

2. Manage as Semi-Primitive Motorized.

3. All Animal Unit Months (AUMs) are available for wildlife unless BLM determines that domestic livestock grazing management would be beneficial to enhance wildlife habitat.

4. Acquire available, unimproved privately owned land between Interstate 5 and the existing public lands. Acquire the eastern one-half of Section 20, T. 48 N., R. 5 W.

5. Seek administrative transfer of three parcels totaling 720 acres from the Klamath National Forest.

6. Area is closed to mineral leasing.

7. The available commercial forest land would be managed for the enhancement of other resources.

B. Shasta and Klamath Rivers Canyon

1. Designate all public land in the Shasta River Canyon below the Highway 263 bridge crossing below Yreka Creek to the confluence with the Klamath River and within 1/4 mile of the normal high water mark as an ACEC.

2. Establish a corridor for the segment of the Klamath River between River Mile 181 and the Klamath National Forest boundary (approximately 400 feet downstream of the mouth of Ash Creek) that does not exceed 1/4 mile above the normal high water mark of this "Recreational" component of the National Wild and Scenic Rivers System.

3. Manage the area as Roaded Natural.

4. Vehicle use is limited to designated roads and trails.

5. Manage future developments outside of public highway rights of way as VRM Class II

6. Withdraw all public lands within the 100-year flood zone of the Shasta River from mineral entry.

7. The area is closed to livestock grazing.

8. Acquire available unimproved lands within the area with priority given (in descending order) to unimproved lands within the ACEC, Klamath River corridor, and lands between Interstate 5 and the ACEC.

9. Withdraw the Osburger Historic Site (5 acres) from mineral entry.

C. Upper Klamath River

1. The Klamath River is considered eligible and suitable for inclusion in the National Wild and Scenic Rivers System. All public land in the corridor bounded by the northern canyon rim and within 1/4 mile of normal high water along the southern bank will be managed in

a manner which will not impair the outstanding remarkable values and consistent with a preliminary classification as "Scenic".

2. Manage area as Semi-Primitive Motorized.

3. Vehicle use is limited to designated roads and trails.

4. Manage area as VRM Class II.

5. The river corridor is closed to livestock grazing.

6. Offer public lands within the river corridor for mineral leasing with no surface occupancy.

7. Mineral material disposals are not allowed within the river corridor.

8. Seek administrative transfer of four parcels totaling approximately 520 acres from the Klamath National Forest.

9. Acquire available unimproved lands within the area and/or develop cooperative management agreements with Pacific Power and Light or their successor(s).

D. Jenny Creek

1. Designate the area as a Research Natural Area/ACEC.

2. Manage as Semi-Primitive Motorized.

3. Vehicle use is limited to designated roads and trails.

4. Withdraw area from the available commercial forest land.

5. Withdraw area from mineral entry.

6. Offer for mineral leasing with no surface occupancy.

7. Acquire available, unimproved privately owned lands within the canyon of Jenny Creek.

8. Close the Research Natural Area/ACEC to livestock grazing.

9. Jenny Creek has been determined as eligible for inclusion in the National Wild and Scenic River System with a preliminary classification as "scenic".

E. Mid Klamath River

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

1. Establish a corridor for this segment of the Klamath River between Iron Gate Reservoir (River Mile 190) and the Klamath River Canyon (River Mile 181) which consists of the 100 year flood plain, within one-eighth mile of normal high water or the nearest paralleling road / railroad, whichever is least. Permit no actions on public land which would impair the quality or condition of this "Recreational" component of the National Wild and Scenic Rivers System.

F. Dry Creek

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

1. Area is closed to motorized vehicles excepting the Siskiyou County maintained Copco Road.

2. Area is closed to livestock grazing.

3. Mineral material disposals are permitted only if such actions enhance the steelhead spawning potential within Dry Creek.

G. Shasta Valley Wetlands

1. Acquire available unimproved lands within the area if acquisition is supported by the Siskiyou County Board of Supervisors. Priority is given to land containing existing or historic native wetlands.

2. Manage as Semi-Primitive Motorized.

3. Manage as VRM Class II.

4. Vehicle use is limited to designated roads and trails.

5. Mineral material disposals are permitted only if such actions enhance the long-term condition of riparian vegetation and the native fisheries habitat.

6. Offer for mineral leasing with no surface occupancy within 300 feet of wetland habitat. Offer all other lands for mineral leasing with no surface disturbing actions permitted between November 15 and April 15.

7. Allow grazing as a management tool.

H. Remainder of Management Area

1. Transfer jurisdiction of nineteen parcels of public land encompassing approximately 3650 acres to the Shasta and Klamath National Forests. These parcels include: agricultural inspection station (T. 39 N., R. 1 W., NW1/4 of NW1/4, Section 4), Dry Lake (T. 44 N., R. 1 W., SE1/4 of SE1/4, Section 31), Goosenest (T. 45 N., R. 4 W., Section 36), Willow Creek to include in spotted owl habitat conservation area (T. 46 N., R. 4 W., NE1/4, Section 36), Pluto Cave to enhance recreation and protect natural / cultural values (T.43 N., R. 4 W., Section 22), Iron Dyke Mine Owl Habitat Area (T. 48 N., R. 8 W., S1/2 of SE1/4, Section 22), McGavin Peak (T. 47 N., R. 2 W., Sections 4, 6, 8, 18, 20 and T. 48 N., R. 2 W., Section 32), and Butte Valley Land Use Project (T. 47 N., R. 1 W., Sections 14 and 22).

2. Transfer via exchange, the Recreation and Public Purposes Act (R&PP) or cooperative agreement administrative responsibility of 80 acres within the Butte Valley Wildlife Area (T. 47 N., R. 2 W., Section 28) to the California Department of Fish and Game.

3. Transfer via exchange, R&PP, or sale to the County of Siskiyou the Hornbrook refuse transfer site (T. 47 N., R. 6 W., Section 29, N1/2 of SE1/4 of NE1/4).

4. Transfer via R&PP or exchange to the City of Yreka, the County of Siskiyou or other qualified local agency the Humbug Gulch parcel encompassing approximately 140 acres (T. 45 N., R. 7 W., Section 21). Offer for exchange to any party after two years from the approval of the Final RMP.

5. 1025 acres near Hawkinsville (T. 45 N., R. 7 W., Sections 2, 3, 10 and 11) are suitable for community development purposes as a reservation for Federally recognized Indian tribe(s). If congressional sponsorship is unavailable, offer for exchange to any party after five years from the approval of the Final RMP.

6. All public land interests not noted above in II A-H (1-5) are available for exchange.

7. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

Amend the existing Habitat Management Plan (HMP) and Memorandum of Understanding with California Department of Fish and Game for Horseshoe Ranch. The amended HMP will identify specific land acquisition needs, establish the desired plant community within each ecological site necessary to favor deer and, possibly, elk use. The HMP will also identify recreational facilities and access necessary to promote a non-motorized, semi-primitive recreation experience.

B. Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

Develop an integrated resource activity plan for the Klamath River below River Mile 181 and the Shasta River Canyon which identifies high priority land acquisitions, designates appropriate roads and trails for recreational access, identifies management facility needs to protect the ACEC and riparian zone, and cooperative actions with adjacent landowners.

C. Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

Amend the existing river management plan for the Klamath River above Copco to reflect the Final Eligibility and Suitability Report for the Upper Klamath Wild and Scenic River Study and the recommendations of the Klamath Falls Resource Management Plan.

D. Develop a Research Natural Area/ACEC management plan for Jenny Creek which identifies necessary land acquisition and/or cooperative agreements with landowners to protect the nesting Bald Eagle, enhance the native fisheries, and allow for non-motorized access by American Indian traditionalists. Manage in conformance with the recommendations of the final Medford Resource Management Plan, i.e. as an ACEC and, if determined suitable, as a "scenic" component of the National Wild and Scenic River System.

E. Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

Continue annual monitoring of steelhead spawning success along lower Dry Creek. Maintain the existing management facilities, i.e. gabions and fences, as needed.

F. Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE

Develop an integrated resource management plan for the Shasta Valley Wetlands if BLM acquires available privately-owned unimproved lands within the area. The activity plan will be developed in cooperation with California Department of Fish and Game, California Department of Transportation, the County of Siskiyou and interested organizations/individuals. The plan will identify forage allocation and desired plant communities for domestic and native grazing, acquisition/cooperative management needs, a network of management facilities to protect the native wetlands, wildlife productivity targets, water quality base and target standards, and public access needs which do not adversely impact the native biota.

G. Develop agreement and/or legislative amendment to modify the boundary of the Klamath National Forest to include the public land noted in II H(1) above and to exclude the Forest Service-administered land noted above in II A(5) and C(8).

H. Contact County of Siskiyou, City of Yreka and other qualified public agencies to acquire management responsibility of parcels noted above in II H (3,4).

I. Contact California Department of Fish and Game to acquire permanent management responsibility for the parcel of public land noted above in II H (2).

K. Revoke existing withdrawals and terminate classifications noted in the NO ACTION ALTERNATIVE, i.e. Carson Gulch, Osburger Gulch, Lennox Rock, and Hawkinsville.

L. Conduct resource inventories (archaeological, sensitive species, hazardous materials, minerals, and timber) on lands available for exchange, sale, or administrative transfer.

M. Maintain or improve the long-term sustained yield of forest products from the available commercial forest lands.

N. Contact the State of California and the County of Siskiyou regarding development of a report addressing the suitability of Shasta River for inclusion in the National Wild and Scenic Rivers System.

MANAGEMENT AREA: **KLAMATH**

ALTERNATIVE: **RESOURCE USE**

MAP (in packet): **3-3a**

I. RESOURCE CONDITION OBJECTIVE

A. Horseshoe Ranch

Same as NO ACTION ALTERNATIVE.

B. Shasta River Canyon

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

C. Upper Klamath River (above Copco)

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

D. Mid-Klamath River (below Iron Gate Dam)

1. Enhance the water-oriented recreation opportunities of this segment of the Klamath River in cooperation with the State of California.

2. Maintain existing riparian conditions.

E. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of scattered public land interests within the Klamath management area.

2. Enhance the resource management efficiency and public service mission of local, state, and Federal agencies via transfer of specific public lands from BLM.

II. LAND USE ALLOCATIONS

A. Horseshoe Ranch

Same as NO ACTION ALTERNATIVE.

B. Shasta River Canyon

1. The riparian zone is closed to livestock grazing.

2. Manage as Roaded Natural.

3. Vehicles are limited to designated roads and trails.

4. Designate all land within 100 feet above normal high water along both side of Shasta River as an Area of Critical Environmental Concern (ACEC).

5. Acquire privately owned lands within the Shasta River Canyon with priority given to unimproved lands within the ACEC and the Wild and Scenic River study corridor.

C. Upper Klamath River (above Copco)

1. Manage as Roaded Natural.

2. The Klamath River is considered eligible for inclusion in the National Wild and Scenic River System. All public land in the corridor bounded by the northern canyon rim and within 1/4 mile normal high water along the southern bank will be managed in a manner which will not impair the outstandingly remarkable values and consistent with a preliminary classification as "Scenic".

3. Vehicle use is limited to designated roads and trails.

4. Mineral material disposals are not permitted within the 100-year flood zone unless such actions do not impair the scenic quality.

5. Seek administrative transfer of five parcels totaling 520 acres from the Klamath National Forest.

D. Mid-Klamath River (below Iron Gate Dam)

1. Establish a corridor for the segment of the Klamath River between Iron Gate Reservoir (River Mile 190) and the Klamath River Canyon (River Mile 181) which uses the nearest paralleling human made feature, i.e. railroad/road, or a line 50 feet above normal high water (whichever is least) as its boundaries. Permit no actions on public land which would impair the quality or condition of this "Recreational" component of the National Wild and Scenic Rivers System

2. Establish a corridor for the segment of the Klamath River between River Mile 181 and the Klamath National Forest boundary (approximately 400 feet downstream of the mouth of Ash Creek) that consists of the 100 year flood plain within one-eighth mile above the normal high water mark or nearest road / railroad paralleling the river (whichever is least) of this "Recreational" component of the National Wild and Scenic Rivers System.

a. Manage as Roaded Natural.

b. Vehicle use is limited to designated roads and trails.

c. Public land within the riparian zone is closed to livestock grazing.

d. Withdraw the Osburger Historic Site (5 acres) from mineral entry.

e. Permit no actions on public land which would impair the quality or condition of this "Recreational" component of the National Wild and Scenic Rivers System.

E. Remainder of Management Area

1. Transfer jurisdiction of eighteen parcels of public land encompassing approximately 3000 acres to the Shasta and Klamath National Forests. These parcels include: agricultural inspection station (T. 39 N., R. 1 W., NW1/4 of NW1/4, Section 4), Dry Lake (T. 44 N., R. 1 W., SE1/4 of SE1/4, Section 31), Goosenest (T. 45 N., R. 4 W., Section 36), Willow Creek to include the spotted owl habitat conservation area (T. 46 N., R. 4 W., NE1/4, Section 36), Iron Dyke Mine Owl Habitat Area (T. 48 N., R. 8 W., S1/2 of SE1/4, Section 22), McGavin Peak (T. 47 N., R. 2 W., Sections 4, 6, 18, 20 and T. 48 N., R. 2 W., Section 32), and Butte Valley Land Use Project (T. 47 N., R. 1 W., Sections 14 and 22).

2. Transfer via exchange, the Recreation and Public Purpose Act (R&PP) or cooperative agreement administrative responsibility of 80 acres within the Butte Valley Wildlife Area (T. 47 N., R. 2 W., Section 28) to the California Department of Fish and Game.

3. Transfer via exchange, R&PP, or sale to the County of Siskiyou the Hornbrook refuse transfer site (T. 47 N., R. 6 W., Section 29, N1/2 of SE1/4 of NE1/4).

4. Transfer via R&PP or exchange to the City or Yreka, the County of Siskiyou or other qualified local agency the Humbug Gulch parcel encompassing approximately 140 acres. Offer for exchange to any party after two years from the approval of the Final RMP.

5. All public land interests not noted above in II A-E (1-4) are available for exchange.

6. The available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Same as NO ACTION ALTERNATIVE (III A-Horseshoe Ranch).

B. Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE (III B-Shasta River Canyon).

C. Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE (III C-Upper Klamath River).

D. Develop a river management plan in cooperation with the State of California, the Klamath National Forest, and other interested entities for the management of the Mid Klamath River below Iron Gate Reservoir.

E. Develop agreement and/or legislative amendment to modify the boundary of the Klamath National Forest to include the public land noted in II E(1) above and to exclude the Forest Service-administered land above in II C(5).

F. Contact County of Siskiyou, City of Yreka and other qualified public agencies to acquire management responsibility of parcels noted above in II E(3,4).

G. Contact California Department of Fish and Game to acquire permanent management responsibility for the parcel of public land noted above in II E(2).

H. Publish Federal Register notice(s) regarding vehicle designations, amended Shasta River ACEC boundary, and mineral withdrawals.

I. Revoke existing withdrawals and terminate classifications noted in the NO ACTION ALTERNATIVE, i.e. Carson Gulch, Osburger Gulch, Lennox Rock, and Hawkinsville.

J. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals and timber) on lands available for exchange, sale, or administrative transfer.

K. Maintain or improve the long-term sustained yield of forest products from the available commercial forest lands.

L. Contact the State of California and the County of Siskiyou regarding development of a report addressing the suitability of Shasta River for inclusion in the National Wild and Scenic Rivers System.

MANAGEMENT AREA: KLAMATH

RATIONALE FOR THE PROPOSED ACTION (RESOURCE USE WITH NATURAL VALUES CONSIDERATION)

MAP (in packet): Map 3-2b

BLM and the California Department of Fish and Game have a successful cooperative management relationship at Horseshoe Ranch which protects the natural values while minimizing taxpayer costs. This relationship is mirrored by BLM and Oregon Department of Fish and Wildlife on the north side of the state boundary. Expansion of public land administration westward to Interstate 5 would complement public management (Pacific Crest Trail, Soda Mountain Wilderness Study Area, existing public land ownership, etc.) in Oregon, enhance public accessibility, and provide more effective long term protection of the interstate deer herd.

Designation of an ACEC in Jenny Creek is consistent with proposed designation by BLM of an ACEC in Oregon to protect the native fisheries. The presence of a nesting Bald Eagle in proximity to roads and a powerline add to the special management needs for this important drainage. Since these values are located in the canyon, it is not necessary to acquire additional uplands as proposed in the Enhancement of Natural and Cultural Values alternative (Map 3-2a).

The upper Klamath River (above Copco) has been determined suitable for inclusion in the National Wild and Scenic Rivers System. The California segment of this corridor possesses characteristics considered appropriate for a classification as "Scenic". If the Oregon segments of the study corridor are included within the National Wild and Scenic Rivers System through the conclusive action of the U.S. Congress, then the relatively short California segment of this same river will be recommended for inclusion. This action will enhance protection of the overall corridor and provide resource management continuity by BLM in both states.

Under the Enhancement of Natural and Cultural Values alternative (Map 3-2a), BLM considered acquisition of considerable acreage south of the upper Klamath River in the vicinity of Shovel Creek and Secret Spring Mountain. The area is considered to contain resource values of local consequence (refer to Appendix C - Secret Spring Mountain). Moreover, the ownership of the area

(principally Pacific Power and Light), the low intensity land uses, and generally rugged topography would seem to favor protection of any extant values. A portion of this area, McGavin Peak, is primarily in federal ownership and contains a small wild horse herd. Due to the proximity of the Goosenest Ranger District headquarters at Macdoel, this specific area would be most efficiently managed by the U.S. Forest Service.

The lower Shasta River is an existing ACEC to protect the regionally significant Chinook salmon spawning habitat. Since this same segment of the river was determined eligible for inclusion in the National Wild and Scenic Rivers, a management boundary is established to meet both purposes. Moreover, the preliminary classification for this segment is identical to the existing "recreational" classification for the Klamath River above and below its confluence with the Shasta River. Withdrawal of the floodplain from mineral entry within the Shasta River canyon is deemed necessary to protect habitat improvements, public investments, spawning habitat, and recreational opportunities.

Black Mountain and the area east of Interstate 5 was considered for acquisition under the Enhancement of Natural and Cultural Values alternative. As noted in Appendix C of this RMP, The Black Mountain area contains resource values of questionable value. Prudence would suggest that BLM not acquire privately owned lands unless the area contains high public values especially if those values are at risk. The area is managed for low intensity uses and threats to any resource values over the life-span of the RMP are considered negligible.

Designation of a narrow corridor for the Klamath River between Iron Gate Dam and the Klamath River canyon (River Mile 181) recognizes the extremely limited public ownership within this segment of the existing "Recreational" component of the National Wild and Scenic Rivers System. This action also recognizes existing private land ownerships and approved land uses.

Although Dry Creek is a relatively small and isolated parcel of public land, the lowermost portion of the creek contains very productive, although irregular, steelhead spawning habitat. The regional quality of this habitat requires public stewardship.

Shasta Valley contains a regionally significant amount of native wetlands. Topographic separation enhances the edge effect or biological value of these wetlands. Long term costs to manage these native wetlands would be less than the cost of creating and/or maintaining human-made reservoirs or wetlands. With relatively minor changes in water and livestock management, the wetlands of this area could produce significantly more waterfowl. The quality of the water supply and dependent fisheries would also improve. The location of these wetlands also invites public awareness and compatible recreational use in an area with very limited existing public lands. Impacts to livestock grazing and agricultural use would be minimal and the lands have little other apparent economic value. Some local citizens expressed concern that acquisition, via exchange, of these wetlands could adversely impact the local economy and, possibly, county revenues. Also some areas identified for acquisition did not contain native wetlands; rather they contained reservoirs and some agricultural soils in spots where wetlands were drained. In response to these concerns, BLM has reduced and shifted the area intended for acquisition. Moreover, BLM will not implement the proposed acquisition of the wetlands area without the support of the Siskiyou County Board of Supervisors.

The remaining scattered public lands have little apparent public value. The productive forest lands are suited for private management or transfer to the Klamath National Forest (McGavin Peak area). Specific parcels lend themselves to long-term stewardship by the U.S. Forest Service because of resource values (e.g. the Willow Creek Mountain Spotted Owl Habitat Conservation Area, Pluto Cave and Butte Valley Land Use Project) or simple land management efficiencies (e.g. Iron Dyke Owl Habitat Area, Goosenest, etc.). In discussions with the U.S. Forest Service, BLM discovered their interest in managing Shasta Grass Lake. Since this lake is in their sphere of interest and is near a Forest Service administrative site, it would not be necessary or efficient for BLM to pursue acquisition as considered in the Enhancement of Natural and Cultural Values alternative (Map 3-2a).

The Hawkinsville parcel is suited for community development purposes. Due to its location near a full service community; i.e., the county seat Yreka, and specific interest by the Native American Indian community, this public land is generally adequate for establishment of a reservation. Public lands are rarely suitable for this use.

The "no leasing" decision, "no surface occupancy" restriction on mineral leasing and the locatable mineral withdrawals on the specified lands, are warranted to protect the natural and cultural values identified in certain key areas of this management area. Lesser restric-

tions, such as those contained in the 43 CFR 3809 regulations and standard mineral lease terms and conditions, were considered and deemed inadequate to protect these values.

TRINITY MANAGEMENT AREA

MANAGEMENT AREA: **TRINITY**

ALTERNATIVE: **NO ACTION**

MAP (in packet): **MAP 3-3b**

I. RESOURCE CONDITION OBJECTIVES

A. Trinity River

1. Protect and enhance existing recreation values and provide opportunities for water-based recreation.

2. Maintain the existing scenic quality of the immediate river zone.

3. Interpret three cultural resource sites (Montana Cabin, Salt Flat, and Rush Creek) for the general public.

4. Improve the anadromous fisheries habitat within the 100-year flood plain to a good condition.

5. Improve the riparian habitat to Class I or Class II condition.

6. Harvest a proportionate share of the allowable sale quantity from the available commercial forest lands.

7. Maintain and increase, if feasible, forage for deer.

B. Tunnel Ridge

1. Protect the wilderness characteristics on 4,875 acres of public land adjoining the Trinity Alps Wilderness Area in cooperation with the Shasta-Trinity National Forests.

C. Remainder of Management Area

1. Maintain the supply of forest products from all available commercial forest lands.

2. Improve and/or increase forage for deer within the deer winter range habitat.

3. Provide maximum forage for domestic and wild animals with at least 400 pounds of residual mulch per acre after the grazing season.

4. Protect and interpret the cultural values of the Indian Creek townsite.

5. Maintain the fisheries habitat within the 100-year flood plain on anadromous fish streams.

6. Improve the riparian habitat along anadromous fish streams to Class I or Class II condition.

7. Dispose of specific small parcels of public land to resolve survey related trespass.

II. LAND USE ALLOCATIONS

A. Tunnel Ridge

4,875 acres of public land are designated as wilderness.

B. Trinity River

1. The Trinity River and lowermost North Fork Trinity River are existing "Recreational" components of the National Wild and Scenic Rivers System. The boundary used in the Trinity River Recreation Activity Management Plan (TRRAMP) serves as the present management boundary for the BLM administered segment of the Trinity River. This boundary is shown on Map 3-3b.

2. Along Highway 299 and Steiner Flat Road the principal Recreation Opportunity Spectrum (ROS) designation is Roaded Natural with Semi-Urban designations surrounding areas of developed private land. The majority of the area within the TRRAMP boundary is classified as Semi-Primitive Motorized.

3. Public lands are managed under VRM Class II.

4. Douglas City and Junction City campgrounds (140 acres and 58 acres, respectively) are withdrawn from mineral entry.

5. Limekiln Gulch and Steel Bridge Campground are segregated from mineral entry under a classification for multiple-use.

6. BLM is acquiring undeveloped privately owned lands within the corridor on an opportunity basis.

7. Vehicle use is limited to designated roads and trails.

8. The majority of the available commercial forest land is managed as restricted. See Appendix G for acreage assigned to the various management categories.

C. Remainder of Management Area

1. Three parcels of public land encompassing approximately 80 acres near the Weaverville Airport have been identified for disposal via the Recreation and Public Purposes Act (R&PP) and Airport Grant. One existing R&PP lease encompasses an additional 17 acres near Junction City.

2. Motorized vehicle use is limited to designated roads and trails.

3. The Indian Creek Townsite is under a BLM right-of-way.

III. MANAGEMENT ACTIONS

A. Tunnel Ridge

The Trinity National Forest issues wilderness permits to users in conformance with a Memorandum of Understanding with BLM. This Memorandum of Understanding will be continued until BLM is able to transfer jurisdiction of this fraction of the Trinity Alps Wilderness Area to the U.S. Forest Service.

B. Trinity River

1. Continue management under the Trinity River Recreation Management Plan (TRRAMP).

2. Develop and maintain recreational facilities at Cemetery Hole, Rush Creek, Bucktail Hole, Montana Cabin, Steel Bridge, Steiner Flat, Sheridan Creek, Junction City Beach and North Fork.

3. Maintain existing recreational facilities at Junction City and Douglas City.

4. Revoke withdrawals on 80 acres of public land adjacent to Douglas City campground and 12.5 acres of public land adjacent to Junction City campground.

5. Designate roads and trails for vehicle use.

6. Close undesignated areas to camping.

7. Continue cooperative management of commercial rafting use with the Trinity National Forest.

8. Withdraw Steel Bridge and Bucktail Hole from mineral entry.

9. Place protective BLM rights-of-way on all recreational facilities and interpreted cultural resource sites.

10. Terminate classification for multiple-use at Limekiln Gulch and Steel Bridge.

11. Continue lands acquisition within the TRRAMP boundary.

C. Remainder of Management Area

1. Continue protective BLM right-of-way at Indian Creek Townsite.

2. Continue the Recreation and Public Purposes Act (R&PP) lease for Trinity County Sheriff's trap range near Junction City.

3. Work with Trinity County to patent under R&PP and Airport Grant the three parcels of public land near Weaverville Airport.

4. Continue administration of five grazing leases on 4,558 acres of public land and monitoring of residual mulch left by allocation of 484 Animal Unit Months.

5. Remove an annual average of 2 million board feet of timber from available commercial forest lands (a fraction of this sum is harvested from within the TRRAMP boundary).

6. Continue anadromous fish rearing improvement actions and annual monitoring along anadromous fishery streams, especially Indian Creek.

MANAGEMENT AREA: **TRINITY**

ALTERNATIVE: **ADMINISTRATIVE ADJUSTMENT**

MAP (in packet): **MAP 3-4a**

I. RESOURCE CONDITION OBJECTIVES

A. Trinity River

1. Enhance recreation opportunities related to use of the Trinity River including mineral collection.

2. Maintain scenic quality along the river corridor.

3. Protect the anadromous fisheries of the Trinity River.

4. Interpret key cultural and natural resources for the public including the Helena site, Rush Creek, Montana Cabin, Ohio Flat and Salt Flat.

5. Maintain the riparian habitat in Class I or Class II condition.

6. Resolve survey-related trespass uses.

7. Consolidate and increase, as feasible, public ownership within areas of low intensity or undeveloped land uses which constitutes the designated river corridor.

8. Maintain a limited supply of forest products from available commercial forest lands, if not in conflict with the above goals.

9. Maintain opportunities for the exploration and production of locatable mineral values outside the 100-year flood plain.

B. Remainder of the Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of public land interests within the Trinity management area.

2. Enhance resource management efficiency and the public service mission of local, state, and Federal agencies via transfer of jurisdiction of specific public lands from BLM.

3. Afford opportunities to meet community development needs for Federally recognized Indian tribes.

II. LAND USE ALLOCATIONS

A. Trinity River

1. Designate the area shown on Map 3-4a (in packet) as the corridor for this "Recreational" component of the National Wild and Scenic Rivers System. This variable width corridor excludes existing and approved developed land uses. Within developed areas, the corridor is limited to the riparian zone and, if appropriate, the undeveloped viewshed behind the developed area. Outermost boundaries of the corridor were established using the following criteria (in descending priority): definable topographic features, roads, surveyed ownership lines, line-of-sight, and 1/4 mile from normal high water. Due to scale, a very few small developed areas excluded from the corridor are not shown on Map 3-4a. This information is available for review at the Redding Area office.

2. Manage all public lands as VRM Class II.

3. Manage all public lands within the corridor as Roaded Natural or Semi-Primitive Motorized.

4. Limit motorized vehicle use to designated roads and trails.

5. Allow forest management practices consistent with VRM Class II guidelines and special status species protection. All available commercial forest land would be managed for the enhancement of the resource values. See Appendix G for acreage assigned to the various management categories.

6. Maintain existing withdrawals from mineral entry at Junction City and Douglas City campgrounds (58 acres and 140 acres respectively). Withdraw other proposed and developed public facilities from mineral entry. Withdraw specific cultural resources from mineral entry including Helena, Rush Creek, Ohio Flat, Salt Flat, and Montana Cabin. Withdraw anadromous fisheries habitat improvements from mineral entry including Steiner Flat and Cemetery Hole.

7. Offer for mineral leasing with no surface occupancy within areas withdrawn from mineral entry.

8. Offer mineral material disposals only to enhance riparian vegetation, anadromous fisheries habitat or when not in conflict with the long term protection of natural values.

9. Area is closed to livestock grazing.

10. Acquire available unimproved private lands within the corridor.

11. Seek administrative transfer of three parcels (N1/2 Section 4, N1/2 Section 5, T. 32 N., R. 10 W., W 1/2 Section 29, All Section 30, All except W 1/2 of SW 1/4 Section 31, and W 1/2 Section 32, T. 33 N., R. 10 W.) totaling approximately 1,450 acres from the Trinity National Forest

B. Remainder of Management Area

1. Transfer approximately 10,000 acres of public land within the North Fork Trinity River and Canyon Creek watersheds (including the Tunnel Ridge portion of the Trinity Alps Wilderness Area) to the Trinity National Forest. Transfer two parcels of public land encompassing approximately 60 acres near McKinney Gulch and Mill Creek to the Trinity National Forest.

2. Transfer to Trinity County via the Recreation and Public Purposes Act (R&PP) and Airport Grant or exchange three parcels of public land encompassing approximately 80 acres near Weaverville Airport.

3. 50 acres near Hayfork (W 1/2, Section 13, T. 31 N., R. 12 W.) are suitable for community development purposes as a reservation for Federally recognized Indian tribe(s). If congressional sponsorship is unavailable, offer for exchange to any party after five years from the approval of the final RMP.

4. All public land interests not noted above in II A-B (1-3) are available for exchange including the Eastman Gulch Owl Habitat Area (if this action has an overall benefit to the species).

5. The available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Develop agreement and/or legislative amendment to modify the boundary of the Trinity National Forest to include the public land noted in II B (1) above and to exclude the public land noted above in II A (11).

B. Modify the existing Trinity River Recreation Area Management Plan to reflect the designated corridor of the Trinity River (i.e.; a "Recreational" component of the National Wild and Scenic Rivers System) and the recommended withdrawals from mineral entry. Continue implementation of recreational developments and monitoring prescribed in the existing management plan (refer to NO ACTION ALTERNATIVE).

C. Publish Federal Register notice(s) regarding designation of the Trinity River corridor, mineral withdrawals, and interagency transfers.

D. Contact Trinity County regarding transfer of public land near Weaverville Airport.

E. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for sale or exchange.

F. Terminate BLM classifications at Steel Bridge campground and Limekiln Gulch. Revoke mineral withdrawals on 80 acres of public land adjacent to Douglas City campground and 12.5 acres of public land adjacent to Junction City campground.

G. Maintain a sustained yield harvest from the available commercial forest lands.

MANAGEMENT AREA: **TRINITY**

ALTERNATIVE: **ENHANCEMENT OF NATURAL AND CULTURAL VALUES**

MAP (in packet): **MAP 3-4b**

I. RESOURCE CONDITION OBJECTIVES

A. Trinity River

1. Maintain and enhance the scenic quality of the Trinity River corridor.

2. Enhance anadromous fisheries habitat within the 100 year flood plain to a good condition.

3. Maintain the riparian habitat in Class I or Class II condition

4. Improve deer winter range habitat as feasible.

5. Protect and interpret key cultural and natural resources for the public including Helena, Salt Flat, Montana Cabin, Rush Creek, and others.

6. Maintain existing recreational opportunities and related facilities along the Trinity River.

7. Resolve survey-related trespass uses.

8. Increase public ownership within the designated corridor.

9. Enhance public access (including Native American Indians) to public-owned resources.

B. Tunnel Ridge

1. Enhance wilderness management efficiency and the public service mission of the Trinity National Forest via transfer of jurisdiction of Tunnel Ridge and adjoining Conrad Gulch from BLM.

C. Weaverville Sphere of Influence

1. Maintain local open space opportunities for the residents of the Weaverville area.

2. Maintain the existing scenic quality of public lands within the Weaverville area.

3. Minimize wildfire hazards via vegetation management including prescribed burning.

4. Enhance the public service mission of Trinity County via transfer of jurisdiction of specific public lands from BLM.

D. Deer Winter Range

1. Improve the condition of deer winter range habitat.

2. Improve the condition of riparian habitat and anadromous fisheries habitat in Weaver, Deadwood, Reading, Browns, and Canyon Creeks.

3. Protect archaeological and Native American heritage resources within the area.

4. Maintain the existing scenic quality of the area.

5. Maintain existing dispersed recreation opportunities.

6. Enhance special status species habitat through vegetation management including forestry practices.

7. Protect the Bald Eagle nesting habitat near Jennings Gulch and the nearby Eastman Gulch Owl Habitat Area.

8. Protect the historic values of Indian Creek townsite.

9. Enhance public access including Native American Indians to public-owned resources.

10. Maintain a harvest of forest products from productive forest lands when such actions are not in conflict with significant natural or cultural values.

E. Grass Valley Creek Watershed

1. Reduce the sediment load entering the Trinity River via Grass Valley Creek for the improvement of anadromous fisheries.

F. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of public land interests within the Trinity management area.

II. LAND USE ALLOCATIONS

A. Trinity River

1. Designate the area shown on Map 3-4b (in packet) as the corridor for this "Recreational" component of the National Wild and Scenic Rivers System. The corridor encompasses the area managed under VRM Class II guidelines. Existing developed land-use areas (not shown due to scale) are excluded from the designated corridor to resolve cases of inadvertent trespass. This information is available for review at the Redding Area Office.

2. Manage all public lands within the corridor as Roaded Natural or Semi-Primitive Motorized.

3. Limit motorized vehicle use to designated roads and trails.

4. Manage all public lands as VRM Class II.

5. Allow forest management practices only if such actions enhance special status species habitat and conform to VRM Class II guidelines.

6. Withdraw all public land within 1/4 mile of normal high water or 100-year floodplain (whichever is greater) of the Trinity and North Fork Trinity Rivers from mineral entry.

7. Corridor is closed to livestock grazing.

8. Offer mineral material disposals only to enhance riparian vegetation or anadromous fisheries habitat.

9. Offer public lands for mineral leasing with no surface occupancy.

10. Seek administrative transfer of three parcels (N1/2 Section 4, N1/2 Section 5, T. 32 N., R. 10 W., W 1/2 Section 29, All Section 30, All except W 1/2 of SW 1/4 Section 31, and W 1/2 Section 32, T. 33 N., R. 10 W.) totaling approximately 1,450 acres from the Trinity National Forest.

11. Acquire available unimproved private lands within the corridor with priority given in descending order to lands which: are located on the Trinity River, contain special status species habitat, are important elements of the viewshed, or provide physical access to public lands within the corridor.

B. Tunnel Ridge

Transfer administration of the Tunnel Ridge portion of the Trinity Alps Wilderness Area (4,875) and adjoining public land within Conrad Gulch (approximately 325 acres) to the Trinity National Forest.

C. Weaverville Sphere of Influence

1. Transfer to Trinity County via the Recreation and Public Purposes Act (R&PP), Airport Grant, or exchange three parcels of public land encompassing approximately 80 acres near Weaverville Airport.

2. All other public land interests within the area are available for transfer under R&PP for management by local agencies and organizations in cooperation with BLM.

D. Deer Winter Range

1. Maintain existing VRM and Recreation Opportunity Spectrum classes.

2. Vehicles are limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd.

3. Withdraw the townsite of Indian Creek from mineral entry. Withdraw all public land within 1/4 mile of the Jennings Gulch Bald Eagle nesting site from mineral entry.

4. Offer public lands for mineral leasing with no surface-disturbing actions permitted between November 15 and April 15 to protect the wintering deer herd.

5. Acquire title to State of California lands within Section 16, T. 34 N., R. 11 W. between Fox and Brock Gulches.

6. Mineral material disposals are not allowed within the 100 year floodplain of anadromous fishery streams (including Deadwood, Weaver, Reading, Canyon, and Brown Creeks) unless such actions enhance anadromous fisheries habitat. Retain and increase, if necessary, public ownership within the area.

7. Acquire available, unimproved private lands with priority given in descending order to lands which: are special status species habitat, located along anadromous streams, are important habitat for wintering deer, possess regionally significant cultural resources, provide physical access to other public lands, or enhance overall management efficiency of public lands.

8. All of the available commercial forest land would be managed for the enhancement of other resources. See Appendix G for acreage assigned to the various management categories.

E. Grass Valley Creek Watershed

1. Manage as VRM class II.

2. Manage as semi-primitive motorized.

3. Limit OHV use to designated roads.

4. BLM-administered roads and trails within the zone of decomposed granite-derived soils are closed to vehicle use during the rainy season and could be closed on a year-round basis at the discretion of the BLM to protect the resource values of these erosion sensitive areas. Also, soil disturbing activities would be conducted only when no new, long-term increases to erosion would result.

5. Mineral material disposals are permitted if they enhance, or are not in conflict with, the protection of the watershed.

6. Available for mineral leasing with no surface occupancy.

7. Acquired lands containing decomposed granitic soils will not be open for locatable mineral entry.

8. Close existing and acquired lands to livestock grazing.

9. Acquire available, unimproved private lands within the watershed via appropriated funding or donation contingent that funds also be included to manage these lands consistent with I.E.1. and II.E. 1-7.

F. Remainder of Management Area

1. BLM-administered roads and trails within the zone of decomposed granite-derived soils are closed to vehicle use during the rainy season and could be closed on a year-round basis at the discretion of the BLM to protect the resource values of these erosion sensitive areas. Also, soil disturbing activities would be conducted only when no new, long-term increases to erosion would result

2. All public land interests not noted above in II A-F (1) are available for exchange.

3. All of the available commercial forest land would be managed for the enhancement of other resources. See Appendix F for acreage assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Develop agreement and/or legislative amendment to modify the boundary of the Trinity National Forest to include the public land noted in II B above and to exclude the public land noted above in II A (10).

B. Modify the existing Trinity River Recreation Area Management Plan to reflect: the designated corridor of the Trinity River (i.e., a "Recreational" component of the National Wild and Scenic Rivers System) recommended mineral withdrawals, and changed resource condition objectives.

C. Develop on integrated resource activity plan for the deer winter range area which identifies priority land acquisitions, designates roads and trails for recreational and Native American access, sensitive resource locations, desired plant communities for riparian/upland ecological sites, and actions needed to enhance deer, special status species and anadromous fishery habitats.

D. Contact Trinity County regarding transfer of public land near Weaverville Airport.

E. Publish Federal Register notice(s) regarding designation of the Trinity River corridor, mineral withdrawals, vehicle designations, and interagency transfers.

F. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for sale or exchange.

G. Terminate BLM classifications at Steel Bridge campground and Limekiln Gulch.

H. Develop an integrated watershed rehabilitation plan for the Grass Valley Creek watershed if acquisitions occur. Incorporate, as feasible, the 1992 Natural Heritage Institute final report and the 1992 Soil Conservation Service erosion study.

I. If significant acreage is acquired in the Grass Valley Creek watershed consider the area for an ACEC.

MANAGEMENT AREA: **TRINITY**

ALTERNATIVE: **RESOURCE USE WITH NATURAL VALUES CONSIDERATION** (proposed action)

MAP (in packet): **MAP 3-5a**

I. RESOURCE CONDITION OBJECTIVES

A. Trinity River

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

1. Enhance recreation opportunities related to use of the Trinity River including mineral collection.

2. Maintain scenic quality along the river corridor.

3. Protect and enhance the anadromous fisheries of the Trinity River.

4. Interpret and protect key cultural and natural resources for the public including the Helena Townsite, Rush Creek, Montana Cabin and Salt Flat.

5. Maintain the riparian habitat in Class I or Class II condition.

6. Resolve survey-related trespass uses.

7. Consolidate and increase, as feasible, public ownership within areas of low intensity or undeveloped land uses which constitute the designated river corridor.

8. Maintain a limited supply of forest products from available commercial forest lands, if not in conflict with the above goals.

9. Maintain opportunities for the exploration and production of locatable mineral values outside the protected areas.

B. Tunnel Ridge

1. Protect the wilderness characteristics on 4,875 acres of public land adjoining the Trinity Alps Wilderness Area in cooperation with the Shasta-Trinity National Forests.

2. Maintain and enhance if feasible the quality of spotted owl habitat within this area.

C. North of Trinity River/Deadwood/Indian Creek

1. Maintain or improve the long-term sustained yield of forest products from the available commercial forest lands.

2. Maintain the quality of existing deer winter range habitat.

3. Provide enhanced access for semi-primitive motorized recreation opportunities and to American Indian heritage resources.

4. Protect existing habitat for special status species including Bald Eagle and spotted owl. Manage the Eastman Gulch Owl Habitat Area in cooperation with the Trinity National Forest.

5. Provide opportunities for mineral development.

6. Protect the historic resources of the Deadwood area and Indian Creek townsite.

7. Maintain the riparian and fisheries habitat of anadromous fisheries streams including Canyon, Indian, and Deadwood Creeks.

8. Maintain the existing scenic quality of BLM administered lands

D. Grass Valley Creek Watershed

1. Reduce the sediment load entering the Trinity River via Grass Valley Creek for the improvement of anadromous fisheries.

E. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of public land interests within the Trinity management area.

2. Enhance resource management efficiency and the public service mission of local, state, and Federal agencies via transfer of jurisdiction of specific public lands from BLM.

3. Afford opportunities to meet community development needs for Federally recognized Indian tribes.

II. LAND USE ALLOCATIONS

A. Trinity River

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

1. Designate the area shown on Map 3-5a (in packet) as the corridor for this "Recreational" component of the National Wild and Scenic Rivers System. This variable width corridor excludes existing and approved developed land uses. Within developed areas, the corridor is limited to the riparian zone and, if appropriate, the undeveloped viewshed behind the developed area. Outermost boundaries of the corridors were established using the following criteria (in descending priority): definable topographic features, roads, surveyed ownership lines, line-of-sight, and 1/4 mile from normal high water. Due to scale, a very few small developed areas excluded from the corridor are not shown on Map 3-5a. This information is available for review at the Redding Area office.

2. Manage all public lands as VRM Class II.

3. Manage all public lands within the corridor as Roaded Natural or Semi-Primitive Motorized.

4. Limit motorized vehicle use to designated roads and trails.

5. Allow forest management practices consistent with VRM Class II guidelines and special status species protection. All available commercial forest land would be managed for the enhancement of other resource values. See Appendix G for acreage assigned to the various management categories.

6. Maintain existing withdrawals from mineral entry at Junction City and Douglas City campgrounds (58 acres and 140 acres respectively). Withdraw other proposed and developed public facilities from mineral entry. Withdraw specific cultural resources from mineral entry including Helena, Rush Creek, Ohio Flat, Salt Flat, and Montana Cabin. Withdraw anadromous fisheries habitat improvements from mineral entry including Steiner Flat and Cemetery Hole. New acquisitions in this area would not be opened for locatable mineral entry.

7. Offer for mineral leasing with no surface occupancy within areas withdrawn from mineral entry.

8. Offer mineral material disposals only to enhance riparian vegetation, anadromous fisheries habitat or

when not in conflict with the long-term protection of natural values.

9. Area is closed to livestock grazing.

10. Acquire available unimproved lands within the corridor.

11. Seek administrative transfer of three parcels (N1/2 Section 4, N1/2 Section 5, T. 32 N., R. 10 W., W 1/2 Section 29, All Section 30, All except W 1/2 of SW 1/4 Section 31, and W 1/2 Section 32, T. 33 N., R. 10 W.) totaling approximately 1,450 acres from the Trinity National Forest.

B. Tunnel Ridge

4,875 acres of public land are designated as wilderness

C. North of Trinity River/Deadwood/Indian Creek

1. Maintain existing Visual Resource Management classes.

2. Maintain existing Recreation Opportunity Spectrum classes.

3. Vehicles are limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd.

4. Withdraw all public land within 1/4 mile of the Jennings Gulch Bald Eagle nesting site from mineral entry. Withdraw the Indian Creek townsite from mineral entry.

5. Acquire title to State of California lands within Section 16, T. 34 N., R. 11 W. between Fox and Brock Gulches.

6. Mineral material disposals are not allowed within the 100-year floodplain of anadromous fishery streams (including Canyon, Indian and Deadwood Creeks) unless such actions enhance anadromous fisheries habitat.

7. Consolidate and increase public land ownership within the area by acquiring available unimproved lands which: adjoin the Trinity River Corridor, facilitate reforestation and other sustained yield forestry practices, protect anadromous fisheries, provide public access to public lands, protect sensitive species habitat, conserve regionally important cultural resources, provide access to identified Native American heritage resources, or enhance overall efficiency of public land administration.

8. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

D. Grass Valley Creek Watershed

1. Manage as VRM class II.

2. Manage as semi-primitive motorized.

3. Limit vehicle use to designated roads and trails.

4. BLM-administered roads and trails within the zone of decomposed granite-derived soils are closed to vehicle use during the rainy season and could be closed on a year-round basis at the discretion of the BLM to protect the resource values of these erosion sensitive areas. Also, soil disturbing activities would be conducted only when no new, long-term increases to erosion would result.

5. Mineral material disposals are permitted if they enhance, or are not in conflict with, the protection of the watershed.

6. Available for mineral leasing with no surface occupancy.

7. Acquired lands containing decomposed granitic soils will not be open for locatable mineral entry.

8. Close existing and acquired lands to livestock grazing.

9. Acquire available unimproved lands within the watershed via appropriated funding or donation contingent that funds also be included to manage these lands consistent with I.D.1. and II.D. 1-7.

E. Remainder of Management Area

1. Transfer to Trinity County via the Recreation and Public Purposes Act (R&PP), Airport Grant, or exchange three parcels of public land encompassing approximately 80 acres near Weaverville Airport.

2. Transfer two parcels of public land encompassing approximately 60 acres near McKinney Gulch and Mill Creek to the Trinity National Forest.

3. 50 acres near Hayfork (W 1/2, Section 13, T. 31 N., R. 12 W.) are suitable for community development purposes as a reservation for Federally recognized Indian

tribe(s) or for community purposes through the Recreation and Public Purposes (R&PP) Act. If congressional sponsorship is unavailable or if an R&PP application is not perfected, offer for exchange to any party after five years from the approval of the Final RMP.

4. BLM-administered roads and trails within the zone of decomposed granite-derived soils are closed to vehicle use during the rainy season and could be closed on a year-round basis at the discretion of the BLM. Also, soil disturbing activities would be conducted only when no new, long-term increases to erosion would result.

5. All public land interests not noted above in II A-D (1-4) are available for exchange.

6. The majority of the commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Develop agreement and/or legislative amendment to modify the boundary of the Trinity National Forest to include the public land noted in II B and D (3) above and to exclude the public land noted above in II A.

B. Modify the existing Trinity River Recreation Area Management Plan to reflect the designated corridor of the Trinity River (i.e. a "Recreational" component of the National Wild and Scenic Rivers System. Continue implementation of recreational developments and monitoring prescribed in the existing management plan (refer to NO ACTION ALTERNATIVE).

C. Publish Federal Register notice(s) regarding designation of the Trinity River corridor, mineral withdrawals, and interagency transfers.

D. Contact Trinity County regarding transfer of public land near Weaverville Airport.

E. Develop an integrated resource activity plan(s) for the area north of the Trinity River and within the Deadwood area. The plan(s) will: identify priority land acquisitions, designate roads and trails for public-administrative and American Indian access, locate sensitive resource locations, detail the desired plant communities for upland/riparian ecological sites, assess reforestation needs, determine annual allowable forest products yield, and prescribe actions needed to enhance deer, special status species, and fishery habitats. Cooperate with the U.S. Forest Service in studies to determine the suitability of Canyon Creek to be included as a "recreational" component in the National Wild and Scenic River System.

F. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for sale or exchange.

G. Terminate BLM classification at Steel Bridge campground and Limekiln Gulch.

H. Actively participate in the Trinity River Task Force for the purpose of implementing the Trinity River Basin Fish and Wildlife Restoration Act.

I. Develop an integrated watershed rehabilitation plan, using the coordinated resource management plan (CRMP) plan process, for the Grass Valley Creek watershed if acquisitions occur. Incorporate, as feasible, the 1992 Natural Heritage Institute final report and the 1992 Soil Conservation Service erosion study.

J. If significant acreage is acquired in the Grass Valley Creek watershed consider the area for an ACEC.

MANAGEMENT AREA: **TRINITY**

ALTERNATIVE: **RESOURCE USE**

MAP (in packet): **MAP 3-5b**

I. RESOURCE CONDITION OBJECTIVES

A. Trinity River

1. Maintain existing recreation opportunities directly related to the use of the Trinity River.

2. Maintain the existing quantity and quality of riparian vegetation on public lands.

3. Maintain important anadromous fisheries habitat.

4. Maintain opportunities for the exploration and production of freely available locatable minerals.

5. Maintain opportunities for the supply of mineral materials.

B. Tunnel Ridge

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

C. North of Trinity River/Deadwood/Indian Creek

1. Maximize the long-term sustained yield of forest products from the available commercial forest lands.

2. Protect known special status species habitat within the areas, including the Jennings Gulch Bald Eagle nesting site and, as feasible, the Eastman Gulch Owl Habitat Area.

3. Maintain opportunities for the exploration and development of freely available locatable minerals.

4. Maintain opportunities for the supply of mineral materials.

5. Protect critical habitat areas for wintering deer.

D. Remainder of the Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of public land interests within the Trinity Management Area.

2. Enhance resource management efficiency and the public service mission of local, state, and Federal agencies via transfer of specific lands from BLM.

3. Afford opportunities to meet community development needs for Federally recognized Indian tribes.

II. LAND USE ALLOCATIONS

A. Trinity River

1. Designate the area shown on Map 3-5b as the corridor for this "Recreational" component of the National Wild and Scenic Rivers System. All BLM approved actions cannot impair the outstandingly remarkable values within this designated corridor. This corridor conforms with the 100-year floodplain.

2. Maintain mineral withdrawals on all developed recreational facilities within the corridor.

3. Vehicle use is limited to designated roads and trails.

4. Manage public land as VRM Class III.

5. Manage all public land as Roaded Natural or Semi-Urban.

6. Offer mineral material disposals which would not impair the outstandingly remarkable values of the Trinity River or inhibit long term salmonid spawning and rearing success.

7. Seek administrative transfer of two parcels totaling approximately 750 acres from the Trinity National Forest.

B. Tunnel Ridge

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

C. North of Trinity River/Deadwood/Indian Creek

1. Maintain mineral withdrawals on all developed recreational facilities.

2. Motorized vehicle use is limited to designated roads and trails.

3. Consolidate and increase public land ownership within the area by acquiring undeveloped private lands which: facilitate efficient forest management, contain critical habitat for special status species, or provide physical access to other public lands.

4. Offer mineral material disposals unless such actions adversely affect important anadromous fisheries habitat.

5. Acquire title to State of California lands within Section 16, T. 34 N., R. 11 W. between Fox and Brock Gulches.

6. The majority of the available commercial forest land would be managed as intensive. See Appendix G for acreage assigned to the various management categories.

D. Remainder of Management Area

1. Transfer to Trinity County via the Recreation and Public Purposes Act (R&PP) or exchange three parcels of public land encompassing approximately 80 acres near Weaverville Airport.

2. Transfer two parcels of public land encompassing approximately 60 acres near McKinney Gulch and Mill Creek to the Trinity National Forest.

3. 50 acres near Hayfork (W 1/2, Section 13, T. 31 N., R. 12 W.) are suitable for community development purposes as a reservation for Federally recognized Indian tribe(s) or for community purposes through the Recreation and Public Purposes (R&PP) Act. If congressional sponsorship is unavailable or if an R&PP application is not perfected, offer for exchange to any party after five years from the approval of the Final RMP.

4. BLM-administered roads and trails within the zone of decomposed granite-derived soils are closed to vehicle use during the rainy season and could be closed on a year-round basis at the discretion of the BLM to protect the resource values of these erosion sensitive areas. Also, soil disturbing activities would be conducted only when no new, long-term increases to erosion would result.

5. All public land interests not noted above in II A-D (1-4) are available for exchange.

III. MANAGEMENT ACTIONS

A. Develop agreement and/or legislative amendment to modify the boundary of the Trinity National Forest to include the public land noted in II B and D (2) above and to exclude the public land noted above in II A (7).

B. Modify the existing Trinity River Recreation Area Management Plan to reflect the designated corridor of the Trinity River (i.e., a "Recreational" component of the National Wild and Scenic Rivers System) and to encourage private sector operation of existing and proposed recreation facilities.

C. Publish Federal Register notice(s) regarding vehicle designations, revocation of withdrawals and termination of existing classifications.

D. Contact Trinity County regarding transfer of public land near Weaverville Airport.

E. Develop an integrated resource activity plan(s) for the area north of Trinity River, within lower Indian Creek and within the Deadwood areas which: identifies priority and acquisitions, designates roads and trails for public and administrative access, locates critical habitat avoidance areas, assesses reforestation needs, determines annual allowable forest products yield, and details the desired plant communities for productive forest, riparian and deer habitat.

F. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for sale or exchange.

G. Terminate BLM classifications at Steel Bridge campground and Limekiln Gulch. Revoke all mineral withdrawals which are not directly related to developed, public-owned facilities.

H. Maintain or improve the long-term sustained yield of forest products from the available commercial forest lands.

MANAGEMENT AREA: TRINITY

RATIONALE FOR THE PROPOSED ACTION (RESOURCE USE WITH NATURAL VALUES CONSIDERATION)

MAP (in packet): MAP 3-5a

The Federal government has a significant commitment to manage the Trinity River. The river is an existing "Recreational" component of the National Wild and Scenic Rivers System and the focus of an interagency fisheries improvement task force. The Trinity has significant recreational values and is highly accessible and attractive to the public. To provide adequate protection of these regionally significant values, a withdrawal from mineral entry of developed sites and significant cultural values is deemed necessary. The lesser restrictions of the 43 CFR 3809 regulations were deemed inadequate to protect natural and cultural values. In response to public input demonstrating the limited activity on existing mining claims and the regulatory requirements of the State of California, BLM has determined that a total withdrawal from mineral location of existing public lands is not necessary along the Trinity River. Restrictions on the development of mineral materials (principally sand and gravel) will segregate incompatible uses while minimizing adverse damage to sensitive resource values.

Designation of the proposed corridor for the Trinity River will adequately protect public owned and privately owned unimproved interests along or near the river. Existing (and approved) privately owned developments near the river generally conform with a "Recreational" designation but are excluded from the designated cor-

ridor to resolve cases of inadvertent trespass and to facilitate local land use planning decisions.

Public lands surrounding the Trinity River corridor and in the Deadwood area have value for dispersed recreation, scenic quality (especially near the Trinity River), fisheries, special status species habitat, cultural resources, forest products, and minerals. BLM is well suited to manage this multiple use prescription. Ownership in these areas is quite varied as is past management practices. Noticeable scenic contrasts are found along ownership boundaries. On many privately owned parcels, forested lands are seriously under-stocked. Holistic management is required to ameliorate past damages while providing for future resource needs. Consolidation of public ownership within this area will benefit the public and enhance overall resource management effectiveness. Since the Draft RMP, BLM has reduced the area identified for acquisition principally between Lewiston and Weaverville. The paucity of existing public land, dominant corporate ownership and limited resource values suggest that acquisition by BLM would be unwarranted. Moreover, newly proposed acquisitions in Grass Valley Creek argue for a reduced expansion of public lands elsewhere in Trinity County.

A number of organizations recommended that BLM acquire title to the Grass Valley Creek watershed. The watershed contributes a large volume of sediment to the Trinity River greatly impacting salmonid spawning and rearing habitat. Since BLM's ability to protect the salmonid habitat is dependent on reducing this sediment discharge, acquisition and rehabilitation of the Grass Valley Creek watershed has been added to this Final RMP. BLM and the other agencies of the Trinity River Task Force recognize that Grass Valley Creek is linked inextricably to the Trinity River restoration program and embrace the recommendations of a report prepared by the Natural Heritage Institute that a responsible organization should acquire fee simple title to the highly erosive tributary watershed. In contrast to other recommendations of this RMP, BLM does not reasonably foresee that acquisition and rehabilitation of the watershed can be accomplished within its current or predicted budget. Additional appropriations are requisite to acquiring and rehabilitating the watershed as well as operating and maintaining this effort.

The current cooperative management of Tunnel Ridge by the Trinity National Forest (under a Memorandum of Understanding with BLM) is working well. No change is deemed necessary in this relationship.

Under the Enhancement of Natural and Cultural Values alternative (Map 3-4b), BLM considered retaining public lands within the Weaverville sphere of influence and greatly increasing public land ownership within the deer winter range of the Weaverville herd. We deem it necessary to focus BLM acquisition efforts as a reflection of limited available exchange base, i.e. a disparity between public lands identified for disposal versus private lands identified for exchange. To be effective, BLM must consolidate lands in areas of relatively higher resource value and higher efficiency possibilities. Due to the sheer number of adjoining landowners, demands for local services, and to provide for homogenous local planning the public lands within the sphere of influence of Weaverville are best suited to help BLM acquire lands elsewhere. This is especially true if the quality of the deer winter range is likely to erode due to actions beyond BLM's control. In other areas, BLM recognizes the limited likelihood of successful acquisition due to majority ownership by corporate firms within portions of the deer winter range, e.g. Reading, Browns, Little Browns, and Rush Creeks. Finally, BLM is recommending acquisition in Grass Valley Creek watershed which will more than compensate for any deer winter range transferred to the private sector via exchange.

The Trinity Management Area contains 3,745 acres of northern spotted owl habitat within three key areas of public land, i.e. Eastman Gulch, Tunnel Ridge, and Rich Gulch. A portion of Eastman Gulch (549 acres) contains one known pair of spotted owls and will be managed as a Owl Habitat Area. The three key areas within the Trinity Management Area adjoin large expanses of federally administered habitat. BLM administered habitat is considered an integral component of this overall habitat principally administered by the Trinity National Forest within designated Habitat Conservation Areas. The BLM administered habitat is considered critical in terms of owl dispersal. Purchase of additional privately owned habitat will enhance the ability of BLM to protect the species and diminish the likelihood of habitat degradation through development and land-uses allowed under private ownership.

One parcel near Hayfork is well suited for community development purposes. Local Native American Indians have a long standing interest in this specific parcel. If local Wintu are recognized as a tribe by the Federal government, this parcel could be used in the development of a small Indian reservation. A five year period following the Record of Decision for this RMP will allow sufficient opportunity for the American Indian community to apply for Federal recognition, gain Congres-

sional support for land transfer, or lease/purchase under the Recreation and Public Purposes Act.

Other BLM-administered interests have low public values, are uneconomical to manage and are best suited for management by private landowners.

The "no surface occupancy" restriction on mineral leasing, and locatable mineral withdrawals on the specific lands, are warranted to protect the natural and cultural values identified in certain key areas of this management area. Lesser restrictions, such as those contained in the 43 CFR 3809 regulations and standard mineral lease terms and conditions, were considered and deemed inadequate to protect these values.

SHASTA MANAGEMENT AREA

MANAGEMENT AREA: **SHASTA**

ALTERNATIVE: **NO ACTION**

MAP (in packet): **MAP 3-3b**

I. RESOURCE CONDITION OBJECTIVES

A. Gene Chappie/Shasta Off-Highway Vehicle Area

1. Provide regional opportunity for developed motorized recreation on public lands in cooperation with the State of California and Federal land managing agencies.

2. Maintain the supply of forest products from available commercial forest lands.

3. Maintain the existing quality of deer winter range habitat.

4. Maintain existing range condition on a portion of one grazing lease with at least 400 pounds of residual mulch per acre after the grazing season.

5. Maintain existing scenic quality on public lands within the view of Whiskeytown Unit of the National Recreation area and within the view from Shasta Dam Scenic Drive.

B. Remainder of Management Area

1. Maintain an average annual sustainable harvest of 560 thousand board feet from available commercial forest lands.

2. Maintain the existing quality of deer winter range habitat on public lands.

3. Improve resource management efficiency within the management area through land exchanges on an opportunity basis.

4. Maintain the existing scenic quality on public lands within the view of Shasta Dam Scenic Drive and Muletown Road.

5. Provide opportunities for local government to use public lands for community purposes.

6. Protect the Kett, Rattlesnake Lane, Fay Hill, Swasey and Quartz Hill archaeological sites and the Pioneer Baby Grave Site.

II. LAND USE ALLOCATIONS

A. Gene Chappie/Shasta Off-Highway Vehicle Area

1. Motorized vehicle use is limited to designated roads and trails.

2. Public lands within the view of Whiskeytown Unit of the National Recreation Area and Shasta Dam Scenic Drive are managed under VRM Class II guidelines.

3. Several small parcels of public land totaling less than eighty acres are available for disposal.

4. Undeveloped private lands and/or easements within the area will be acquired to provide opportunities for trail network development and provide public access to public lands.

5. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

B. Remainder of Management Area

1. Public lands within the viewshed of Shasta Dam Scenic Drive and Muletown Road are managed under Visual Resource Management Class II guidelines.

2. Fourteen parcels of public land encompassing approximately 1,000 acres are classified for lease under the Recreation and Public Purposes Act to benefit the City of Redding, Shasta County, California Department of Forestry and Fire Protection, and non-profit organizations.

3. More than forty small parcels of public land encompassing approximately 300 acres are available for disposal.

4. Motorized vehicle use is limited to designated roads and trails.

5. Management actions at the Pioneer Baby Grave Site are limited by an interagency agreement among BLM, California Department of Parks and Recreation, and California Department of Transportation.

6. All public land interests not noted above in II A, B (1-5) may be available for disposal via exchange on a case-by-case basis for higher public values elsewhere.

7. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Continue implementation of the Gene Chappie/Shasta Off-Highway Vehicle Area project including: acquisition of private lands, development of public access, construction of an integrated trail network, development of camping and parking areas, installation of interpretive signing, distribution of user information, stabilization of erosion-prone areas, provision of visitor services, and monitoring of resources conditions.

B. Continue to respond to public requests for specific uses on public lands especially rights-of-way and group use permits. Respond to, as necessary, unauthorized uses including trash dumping, vandalism, trespass, and illegal activities.

C. Work with Recreation and Public Purposes Act (R&PP) lease holders to perfect eventual transfer via R&PP sale, as feasible.

D. Continue land exchanges on an opportunity basis.

E. Maintain a sustained yield harvest from the available commercial forest land.

F. Continue to crush and/or burn decadent brush to reduce wildfire severity and improve upland wildlife habitat especially wintering deer.

MANAGEMENT AREA: **SHASTA**

ALTERNATIVE: **ADMINISTRATIVE ADJUSTMENT**

MAP (in packet): **MAP 3-4a**

I. RESOURCE CONDITION OBJECTIVES

A. Interlakes Special Recreation Management Area

1. Provide a regional opportunity for motorized recreation with primary focus within the Gene Chappie/Shasta Off-Highway Vehicle (OHV) Area. Enhance public access to the OHV Area via the surrounding lands within the Special Recreation Management Area.

2. Improve the long term sustained yield of forest products from available commercial forest lands.

3. Enhance the long-term condition and protection of deer winter range habitat.

B. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of public land interests within the management area.

2. Enhance resource management efficiency and the public service mission of local, state, and Federal agencies via transfer of jurisdiction of specific public lands from BLM.

II. LAND USE ALLOCATIONS

A. Interlakes Special Recreation Management Area

1. Motorized vehicle use is limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd.

2. Area is managed as Semi-Urban, Semi-Primitive Motorized, and Roaded Natural.

3. Area is closed to new livestock grazing applications.

4. Area is designated a Special Recreation Management Area incorporating the Gene Chappie-Shasta Off-Highway Vehicle Area.

5. Public lands within the viewshed of Whiskeytown Unit of the National Recreation Area and Shasta Dam Scenic Drive are managed as VRM Class II.

6. Lands acquired using State of California funds are closed to mineral location.

7. Undeveloped private lands within the area will be acquired (based on the following descending priorities) if the lands: provide legal public access to existing public lands, complete desired vehicle trails, enhance protection of critical habitat or soils/slopes, improve the manageability of productive forest lands, or enhance long-term administration of the area.

8. The majority of the available commercial forest land would be managed as restricted. See Appendix G for

acreage assigned to the various management categories.

9. Seek administrative transfer of all public administered by the Shasta National Forest within the Special Recreation Management Area to the BLM.

B. Remainder of the Management Area

1. Transfer via the Recreation and Public Purposes Act (R&PP) or exchange to the Shasta State Historic Park two parcels of public land encompassing approximately 160 acres (T. 32 N., R. 6 W., Section 25, and T. 32 N., R. 5 W., Section 30) to maintain the visual integrity of the historic town setting.

2. Transfer via R&PP or exchange three parcels of public land encompassing approximately 320 acres to the Centerville Community Services District for community water developments.

3. Transfer via R&PP or exchange ten parcels of public land encompassing approximately 800 acres to the City of Redding to satisfy community development needs.

4. Transfer via R&PP or exchange to a qualified organization the administrative responsibility of the Central Valley Cemetery located within one parcel of public land at SE 1/4 of NW 1/4 of Section 30, T. 33 N., R. 5 W.

5. Transfer two parcels of public land encompassing approximately 1,500 acres of public land to the Whiskeytown Unit of the National Recreation Area to facilitate public recreational access.

6. Transfer to County of Shasta via R&PP, exchange, or sale, the French Gulch and Shasta refuse transfer sites encompassing approximately 6 acres of public land.

7. Transfer via R&PP, sale, or exchange, to the Independent Order of Odd Fellows, one parcel of public land in French Gulch to resolve an inadvertent trespass by the community cemetery.

8. Transfer via R&PP, or exchange, to the State of California, County of Shasta, City of Redding, community service districts or any other qualified organization administrative responsibility of any portion of 5,500 acres of public land to meet local services needs. Offer for exchange to any party after two years from approval of the final RMP.

9. BLM-administered roads and trails within the zone of decomposed granite-derived soils are closed during the rainy season and could be closed on a year-round basis at the discretion of the BLM to protect the resource values of these erosion sensitive areas. Also, soil disturbing activities would be conducted only when no new, long-term increases to erosion would result.

10. Vehicle use is limited to designated roads and trails.

11. All public land interests not noted above in II A, B (1-9) are available for exchange.

12. The available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Develop an integrated resources activity plan for the Interlakes Special Recreation Management Area which: identifies high priority land acquisition needs, identifies sensitive resource locations for protection, details the trail and management facilities development/maintenance needs, delineates VRM Class II areas, distribution of user information, describes needed visitor services, and details monitoring of resources conditions.

B. Contact the State of California and the County of Shasta regarding development of reports addressing the suitability of Clear Creek and North Fork Cottonwood Creek for inclusion in the National Wild and Scenic Rivers System. Assist these agencies, as feasible, in development of these report(s).

C. Contact the State of California, County of Shasta, City of Redding, special service districts and appropriate qualified organizations regarding acquisition or administrative transfer of public land (noted in II B 1-9) above.

D. Develop agreement and/or legislative amendment to modify the boundary of the Whiskeytown Unit of the National Recreation Area to include the public land noted in II B (5).

E. Publish Federal Register notice(s) regarding vehicle designations and designation of the Special Recreation Management Area.

F. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for exchange, sale, or administrative transfer.

G. Maintain a sustained yield harvest from the available commercial forest lands.

MANAGEMENT AREA: **SHASTA**

ALTERNATIVE: **ENHANCEMENT OF CULTURAL AND NATURAL VALUES**

MAP (in packet): **MAP 3-4b**

I. RESOURCE CONDITION OBJECTIVES

A. Interlakes Special Recreation Management Area

1. Provide a regional opportunity for motorized recreation with a focus within the Gene Chappie/Shasta Off-Highway Vehicle Area.

2. Improve the long-term condition and protection of deer winter range habitat.

3. Enhance non-motorized recreation opportunities within the area especially via a greenway connecting Redding to Shasta Dam along the Sacramento River.

4. Maintain the existing scenic quality of the area.

5. Provide interpretation of natural and historic resource values to the public.

6. Improve sensitive species habitat protection.

7. Improve the long-term sustained yield of forest products from productive forest lands when not in conflict with important natural values.

8. Maintain opportunities to explore and develop freely available minerals on public lands.

B. West of French Gulch

1. Improve the condition of deer winter range habitat.

2. Protect historic resources of the French Gulch and Deadwood mining districts.

C. Keswick to Sugarloaf Axis

1. Reduce wildfire risk to private property developments adjoining public land through fuel reduction.

2. Maintain the existing open space opportunities for local residents west of Redding.

3. Maintain the existing scenic quality of public lands within the area.

D. Swasey Drive Area of Critical Environmental Concern

Conserve and interpret prehistoric and historic archaeological resources on public lands.

E. Lower Clear Creek

1. Enhance anadromous fisheries habitat.

2. Restore the quality and quantity of riparian vegetation to Class I and Class II.

3. Enhance non-motorized recreation opportunities by establishing a greenway from the Sacramento River to the Whiskeytown Unit of the National Recreation Area along Clear Creek.

4. Maintain the scenic quality of the canyon above Clear Creek Road Bridge.

5. Re-establish the native plant communities and associated fauna of the area.

6. Protect historic and socio-cultural values of the area.

F. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of public land interests within the management area.

2. Enhance resource management efficiency and the public service mission of local, state, and Federal agencies via transfer of jurisdiction of specific public lands from BLM.

II. LAND USE ALLOCATIONS

A. Interlakes Special Recreation Management Area

1. Motorized vehicle use is limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd.

2. Area is managed as Semi-Primitive, Non-Motorized, Semi-Urban, Semi-Primitive Motorized, and Roaded Natural.

3. Area is closed to new grazing leases.

4. Area is designated a Special Recreation Management Area incorporating the Gene Chappie-Shasta Off-Highway Vehicle Area.

5. Public lands within the viewshed of Whiskeytown Unit of the National Recreation Area and Shasta Dam Scenic Drive are managed as VRM Class II.

6. Lands acquired using State of California funds will not be opened to mineral location, but will be available for mineral leasing.

7. Maintain withdrawal from mineral entry on all public land within 1/4 miles of normal high water of the Sacramento River and the spillway elevation of Keswick Reservoir.

8. Offer all public lands within the area east of the Sacramento River and within 1/4 mile west of the Sacramento River for mineral leasing with no surface occupancy.

9. Mineral material disposals are not allowed within the 100-year floodplain of anadromous fishery streams in the area east of the Sacramento River unless such actions enhance salmonid spawning, riparian vegetation, or semi-primitive recreation opportunities.

10. Acquire unimproved private lands which provide legal public access to adjoining public lands, complete segments of recreational trails, enhance protection of sensitive resources, provide opportunities for public interpretation, enhance reforestation efforts (including habitat improvement for sensitive species), or enhance long-term administration of the area.

11. The available commercial forest land would be managed for the enhancement of other resource values. See Appendix G for acreage assigned to this management category.

B. West of French Gulch

1. Issue no new grazing leases.

2. Manage as Semi-Primitive Motorized and Roaded-Natural.

3. Acquire available, unimproved private lands which: contain important cultural resources, possess critical habitat for wintering deer, provide physical access to pubic lands, reduce inadvertent trespass potential, or facilitate long-term administration within the area.

4. Vehicle use is limited to designated roads and trails.

5. The available commercial forest land would be managed for the enhancement of other resource values. See Appendix G for acreage assigned to this management category.

C. Keswick to Sugarloaf Axis

1. Manage as Roaded Natural.

2. Vehicle use is limited to designated roads and trails.

3. Manage as VRM Class II.

D. Swasey Drive Area of Critical Environmental Concern.

1. Manage as Semi-Primitive Motorized.

2. Area is withdrawn from mineral entry.

3. Vehicles are limited to designated roads and trails.

4. Area is designated as an ACEC.

E. Lower Clear Creek

1. Public land within the 100-year floodplain is withdrawn from mineral entry. (This same area is open to recreational mineral collection.)

2. Vehicles are limited to designated roads and trails on all other public lands.

3. Public land within the 100-year floodplain is available for mineral leasing with no surface occupancy.

4. Mineral material disposals are not permitted within 200 feet of normal high water unless such actions enhance salmonid spawning or the restoration of riparian vegetation.

5. Area is managed as Roaded Natural and Semi-Primitive Motorized.

6. Manage all public land upstream of Clear Creek Road bridge as VRM Class II.

7. Acquire available, unimproved private land which: contain important spawning habitat, lay within the 100-year floodplain, possess significant historic or socio-cultural resources, provide public access to public lands within the area, contain important visual qualities within the creek viewshed above Clear Creek Road bridge, or facilitate long term resource protection of the area.

F. Remainder of the Management Area

1. Transfer via the Recreation and Public Purposes Act (R&PP) or exchange to Shasta State Historic Park one parcel of land containing approximately 80 acres (Section 25, T. 32 N., R. 6 W.) to protect important features of the historic settlement.

2. Transfer via R&PP or exchange to the City of Redding one parcel of public land containing approximately 100 acres near Buckeye (Section 14, T. 32 N., R. 5 W.) for community purposes.

3. Transfer via R&PP or exchange to the State of California one lot of public land at the intersection of Highway 299 and Iron Mountain Road to develop a fire fighting station.

4. Transfer via R&PP, exchange, or sale to a qualified organization the administrative responsibility of the Central Valley Cemetery located within one parcel of public land at SE1/4 of NW1/4 of Section 30, T. 33 N., R. 5 W.

5. Transfer via R&PP or exchange to the County of Shasta the French Gulch and Shasta refuse transfer sites encompassing approximately 6 acres of public land.

6. Transfer via R&PP or exchange, to the Independent Order of Odd Fellows, one parcel of land in French Gulch to resolve an inadvertent trespass by the community cemetery.

7. BLM-administered roads and trails within the zone of decomposed granite-derived soils are closed to vehicle use during the rainy season and could be closed on a year-round basis at the discretion of the BLM to protect the resource values of these erosion sensitive areas. Also, soil disturbing activities would be conducted only when no new, long-term increases to erosion would result

8. Vehicle use is limited to designated roads and trails.

9. All public land interests not noted above in II A-F (1-6) are available for exchange.

10. The available commercial forest land would be managed for the enhancement of other resource values. See Appendix G for acreage assigned to this management category.

III. MANAGEMENT ACTIONS

A. Develop an integrated resources activity plan for the Interlakes Special Recreation Management Area which: identifies priority land acquisition needs, identifies sensitive resource protection locations, details the trail and management facilities development/maintenance needs, delineates VRM Class area, identifies important public interpretive needs, describes needed visitor services, details resource monitoring conditions, and evaluate the possible designation as a National Recreation Area.

B. Contact the County of Shasta and the State of California regarding development of reports addressing the suitability of Clear Creek and North Fork Cottonwood Creek for inclusion in the National Wild and Scenic Rivers System. Assist these agencies as feasible in development of these reports.

C. Develop a fuels management plan for the public land between Keswick and Sugarloaf.

D. Develop a management plan for the long-term protection of the Swasey Drive cultural resources ACEC.

E. Develop an integrated resource activity plan for Clear Creek which: identifies high priority land acquisition, details habitat restoration needs for salmonid spawning, delineates desired plant community and restoration needs for riparian vegetation, describes protective management facilities, lists important cooperators and their responsibilities, identifies important cultural resources, and describes the recreational opportunities for the public.

F. Contact the State of California, County of Shasta, City of Redding, and other qualified agencies/organizations regarding acquisition or administrative transfer of public land noted in II F (1-6) above.

G. Publish Federal Register notice(s) regarding vehicle designations, ACEC designation, designation of the Special Recreation Management Area, and mineral withdrawals.

H. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and

timber) on lands available for exchange or administrative transfer.

MANAGEMENT AREA: **SHASTA**

ALTERNATIVE: **RESOURCE USE WITH NATURAL VALUES CONSIDERATION** (proposed action)

MAP (in packet): **MAP 3-5a**

I. RESOURCE CONDITION OBJECTIVES

A. Interlakes Special Recreation Management Area

1. Provide a regional opportunity for motorized recreation with a focus within the Gene Chappie/Shasta Off-Highway Vehicle Area.

2. Enhance non-motorized recreation opportunities within the area via a greenway connecting Redding to Shasta Dam along the Sacramento River.

3. Maintain or improve the long-term sustained yield of forest products from available commercial forest lands.

4. Improve the long term condition and protection of deer winter range habitat.

5. Maintain special status species habitat.

6. Maintain the existing scenic quality of the area.

7. Maintain opportunities to explore and develop freely available minerals on public lands.

B. West of French Gulch

1. Maintain or improve the long-term sustained-yield of forest products from the available commercial forest lands.

2. Improve the condition of deer winter range habitat.

3. Protect significant historic elements of the French Gulch and Deadwood mining districts.

4. Maintain opportunities to explore and develop freely available minerals on public lands.

5. Enhance existing semi-primitive motorized recreation opportunities.

C. Swasey Drive Area of Critical Environmental Concern

Conserve and interpret prehistoric and historic archaeological resources on public lands.

D. Lower Clear Creek and Mule Mountain

1. Enhance anadromous salmonid habitat.

2. Restore the quality and quantity of riparian vegetation to Class I and Class II.

3. Enhance non-motorized recreation opportunities by establishing a greenway from the Sacramento River to the Whiskeytown Unit of the National Recreation Area along Clear Creek.

4. Maintain the scenic quality of the canyon above Clear Creek Road Bridge.

5. Protect the native plant communities and associated fauna of the area.

6. Protect the historic values of the area.

E. Clear Creek Uplands

1. Enhance the resource management efficiency and public service mission by transfer of administrative responsibilities, via the Recreation and Public Purposes Act, to a qualified organization or government entity.

F. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of public land interests within the Shasta Management Area.

2. Enhance resource management efficiency and the public service mission of local, state, and Federal agencies via transfer of jurisdiction of specific public lands from BLM.

II. LAND USE ALLOCATIONS

A. Interlakes Special Recreation Management Area

1. Motorized vehicle use is limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd.

2. Area is managed as Semi-Primitive, Non-Motorized, Semi-Urban, Semi-Primitive Motorized, and Roaded Natural.

3. Area is closed to new grazing leases.

4. Area is designated a Special Recreation Management Area incorporating the Gene Chappie-Shasta Off-Highway Vehicle Area.

5. Public lands within the viewshed of Whiskeytown Lake of the Whiskeytown Unit of the National Recreation Area and Shasta Dam Scenic Drive are managed as VRM Class II.

6. Lands acquired using State of California funds will not be opened to mineral location, but will be available for mineral leasing.

7. Maintain withdrawal from mineral entry on all public land within 1/4 mile of normal high water of the Sacramento River and the spillway elevation of Keswick Reservoir.

8. Offer all public lands within the area east of the Sacramento River and within 1/4 mile west of the Sacramento River for mineral leasing with no surface occupancy.

9. Mineral material disposals are not allowed within the 100-year floodplain of anadromous fishery streams in the area east of the Sacramento River unless such actions enhance salmonid spawning, riparian vegetation, or semi-primitive recreation opportunities.

10. Acquire available unimproved lands which provide legal public access to adjoining public lands, complete segments of recreational trails, enhance protection of sensitive resources, provide opportunities for public interpretation, enhance reforestation efforts (including habitat improvement for sensitive species), or enhance long-term administration of the area.

11. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

B. West of French Gulch

1. Manage as Roaded Natural and Semi-Primitive Motorized.

2. Acquire available unimproved lands which: enhance long-term forestry management, possess critical habitat for wintering deer, contain significant cultural resources, enhance protection or restoration of special status species habitat, provide physical access to public lands, or enhance long-term administration of the area.

3. Vehicle use is limited to designated roads and trails.

4. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

C. Swasey Drive Area of Critical Environmental Concern (ACEC)

1. Manage as Semi-Primitive Motorized.

2. Vehicles are limited to designated roads and trails.

3. Area is designated as an ACEC.

D. Lower Clear Creek and Mule Mountain

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

1. Public land within the 100-year floodplain is withdrawn from mineral entry. (This same area is open to recreational mineral collection.)

2. Vehicles are limited to designated roads and trails on all other public lands.

3. Public land within the 100-year floodplain is available for mineral leasing with no surface occupancy.

4. Mineral material disposals are not permitted within the 100 year floodplain unless such actions enhance salmonid spawning or the restoration of riparian vegetation.

5. Area is managed as Roaded Natural and Semi-Primitive Motorized.

6. Manage all public land upstream of Clear Creek Road bridge as VRM Class II.

7. Acquire available, unimproved private land which: contain important anadromous salmonid habitat, lay within the 100-year floodplain, possess significant historic or socio-cultural resources, provide public access to public lands within the area, contain important scenic qualities within the creek viewshed above Clear Creek Road bridge, or facilitate long term resource protection of the area.

E. Clear Creek Uplands

1. Transfer, via the Recreation and Public Purposes Act (R&PP), four parcels of public land encompassing approximately 280 acres to any qualified organization or agency for the purposes expressed by the Horsetown/Clear Creek Preserve Coalition. If an acceptable R&PP application is not perfected within two years of the Final RMP the parcels will be offered for exchange.

F. Remainder of Management Area

1. Transfer via the Recreation and Public Purposes Act (R&PP) or exchange to Shasta State Historic Park two parcels of public land encompassing approximately 160 acres (Section 25, T. 32 N., R. 6 W. and Section 30, T. 32 N., R. 5W.) to maintain the scenic integrity of the historic town setting.

2. Transfer via R&PP, sale, or exchange to a qualified organization administrative responsibility of the Central Valley Cemetery located on one parcel of public land at SE 1/4 of NW 1/4 of Section 30, T. 33 N., R. 5 W.

3. Transfer to County of Shasta via R&PP, exchange, or sale, the French Gulch and Shasta refuse transfer sites encompassing approximately 6 acres of public land.

4. Transfer via R&PP, sale, or exchange, to the Independent Order of Odd Fellows, one parcel of public land in French Gulch to resolve an inadvertent trespass by the community cemetery.

5. Transfer via R&PP, or exchange, to the State of California, County of Shasta, City of Redding, community service districts or any other qualified organization administrative responsibility of any portion of 6,000 acres of public land to meet local communities services needs. Within two years from approval of the Final RMP the organizations mentioned above will be given an opportunity to submit R&PP applications for specific parcels prior to the land being offered for exchange. Offer for exchange to any party after two years from approval of the final RMP.

6. BLM-administered roads and trails within the zone of decomposed granite-derived soils are closed to vehicle use during the rainy season and could be closed on a year-round basis at the discretion of the BLM to protect the resource values of these erosion sensitive areas. Also, soil disturbing activities would be conducted only when no new, long-term increases to erosion would result

7. Vehicle use is limited to designated roads and trails.

8. All public land interests not noted in II A-F (1-5) are available for exchange.

9. The available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Develop an integrated resources activity plan for the Interlakes Special Recreation Management Area which: identifies priority land acquisition needs, identifies sensitive resource protection locations, details the trail and management facilities development/maintenance needs, identifies potential site(s) for a regional firing range as proposed by a requesting agency(s), delineates Visual Resource Management Class areas, identifies important public interpretive needs, describes needed visitor services, details resource monitoring conditions and evaluates possible designation as a National Recreation Area.

B. Contact the County of Shasta and the State of California regarding development of reports addressing the suitability of Clear Creek and North Fork Cottonwood Creek for inclusion in the National Wild and Scenic Rivers System. Assist these agencies as feasible in development of these reports.

C. Develop a management plan for the long-term protection of the Swasey Drive cultural resources ACEC.

D. Develop an integrated resource activity plan for Clear Creek which: identifies high priority land acquisition, details habitat restoration needs for anadromous salmonids, delineates desired plant community and restoration needs for riparian vegetation, describes protective management facilities, lists important cooperators and their responsibilities, identifies important cultural resources, and describes the recreational opportunities for the public.

E. Contact the State of California, County of Shasta, City of Redding, and other qualified agencies/organizations regarding acquisition or administrative transfer of public land noted in II F (1-5) above.

F. Publish Federal Register notice(s) regarding vehicle designations, ACEC designation, designation of the Special Recreation Management Area, and mineral withdrawals.

G. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for exchange or administrative transfer.

H. Maintain a sustained yield harvest from the available commercial forest land.

MANAGEMENT AREA: **SHASTA**

ALTERNATIVE: **RESOURCE USE**

MAP (in packet): **MAP 3-5b**

I. RESOURCE CONDITION OBJECTIVES

A. Gene Chappie/Shasta Off-Highway Vehicle Area

1. Provide a regional opportunity for motorized recreation.

2. Maximize the long-term sustained yield of forest products from available commercial forest land.

3. Maintain opportunities to explore for and develop freely available minerals on public land.

B. West of French Gulch

1. Maximize the long-term sustained yield of forest products from available commercial forest land.

2. Enhance opportunities to explore and develop locatable minerals on public land.

3. Maintain opportunities for dispersed recreation.

C. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of public land interests within the management area.

2. Enhance resource management efficiency and the public service mission of local, state, and Federal agencies via transfer of jurisdiction of specific public lands from BLM.

II. LAND USE ALLOCATIONS

A. Gene Chappie/Shasta Off-Highway Vehicle Area

1. Area is open to motorized vehicle use.

2. Area is managed as Semi-Urban, Semi-Primitive Motorized, and Roaded Natural.

3. Lands acquired using State of California funds will not be opened to mineral location, but will be available for mineral leasing.

4. Available undeveloped private lands will be acquired if the lands: provide public access, complete desired vehicle trails, or enhance forestry management.

5. The majority of the available commercial forest land would be managed as intensive. See Appendix G for acreage assigned to the various management categories.

B. West of French Gulch

1. Area is open to motorized vehicle use.

2. Area is managed as Semi-Primitive Motorized and Roaded Natural.

3. The majority of the available commercial forest land would be managed as intensive. See Appendix G for acreage assigned to the various management categories.

C. Remainder of the Management Area

1. Transfer via the Recreation and Public Purposes Act (R&PP) or exchange to Shasta State Historic Park two parcels of public land encompassing approximately 160 acres (Section 25, T. 32 N., R. 5 W., Section 30, T. 32 N., R. 5 W.) to maintain the visual integrity of the historic town setting.

2. Transfer via R&PP, or exchange, two parcels of public land encompassing approximately 300 acres to the Centerville Community Services District for community water developments.

3. Transfer via R&PP, or exchange, ten parcels of public land encompassing approximately 800 acres to the City of Redding to satisfy community development needs.

4. Transfer via R&PP, or exchange to a qualified organization administrative responsibility of the Central Valley Cemetery located on one parcel of public land at SE 1/4 of NW 1/4 of Section 30, T. 33 N., R. 5 W.

5. Transfer two parcels of public land encompassing approximately 1,500 acres of public land to the Whis-

keytown Unit of the National Recreational Area to facilitate public recreational access.

6. Transfer to County of Shasta via R&PP, exchange, or sale, the French Gulch and Shasta refuse transfer sites encompassing approximately 6 acres of public land.

7. Transfer via R&PP, sale, or exchange, to the Independent Order of Odd Fellows, one parcel of public land in French Gulch to resolve an inadvertent trespass by the community cemetery.

8. Transfer via R&PP, or exchange, to the State of California, County of Shasta, City of Redding, community service districts or any other qualified organization administrative responsibility of any portion of 6,200 acres of public land to meet local communities services needs. Within two years from approval of the Final RMP the government entities or organizations mentioned above will be given an opportunity to submit R&PP applications for specific parcels prior to the land being offered for exchange. Offer for exchange to any party after two years from approval of the final RMP.

9. BLM-administered roads and trails within the zone of decomposed granite-derived soils are closed to vehicle use during the rainy season and could be closed on a year-round basis at the discretion of the BLM to protect the resource values of these erosion sensitive areas. Also, soil disturbing activities would be conducted only when no new, long-term increases to erosion would result

10. Vehicle use is limited to designated roads and trails.

11. All public land interests not noted above in II A-C (1-8) are available for exchange.

12. The available commercial forest land will be managed as restricted.

III. MANAGEMENT ACTIONS

A. Develop an integrated resources activity plan for the Gene Chappie/Shasta Off-Highway Vehicle Area which: identifies priority land acquisition needs, identifies significant natural resources (i.e., threatened or endangered species) for protection, details developments, and delineates forestry management needs.

B. Acquire available, unimproved private lands within the area of West of French Gulch on an opportunity basis.

C. Contact the State of California and the County of Shasta regarding development of reports addressing the suitability of Clear Creek and North Fork Cottonwood Creek for inclusion in the National Wild and Scenic Rivers System. Assist these agencies, as feasible, in development of these report(s).

D. Contact the State of California, County of Shasta, City of Redding, special service districts and appropriate qualified organizations regarding acquisition or administrative transfer of public land noted in II C (1-8) above.

E. Develop agreement and/or legislative amendment to modify the boundary of the Whiskeytown Unit of the National Recreation Area to include the public land noted in II C (5).

F. Publish Federal Register notice(s) regarding vehicle designations.

G. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for exchange or administrative transfer.

H. Maintain a sustained yield harvest from the available commercial forest land.

MANAGEMENT AREA: SHASTA

RATIONALE FOR THE PROPOSED ACTION (RESOURCE USE WITH NATURAL VALUES CONSIDERATION)

MAP (in packet): Map 3-5a

The Interlakes Special Recreation Management Area has significant state and regional value. Located directly between two units of the Whiskeytown-Shasta-Trinity National Recreation Area and adjoining the growing population center of Redding, this area ties together separate recreational uses into a cohesive package of recreational opportunities. Off-highway vehicle use, hiking, biking, hang-gliding, sightseeing, fishing, boat-

ing, and hunting are recreational opportunities afforded by this area. Through close interagency cooperation, the public will benefit by integrating and enhancing existing public land assets managed by the U.S. Forest Service, U.S. Bureau of Reclamation, National Park Service, and BLM. Recreational use, development of a greenway between Shasta Dam and Redding, protection of deer winter range, maintenance of water quality, development of mineral resources, maintenance of forest products supply, and protection of special status species habitat is a multiple land-use challenge well suited for BLM. BLM has an obligation to protect public investments within this area. Therefore, lands purchased using State of California funds should not be opened to mineral entry as a safeguard against mining-related patent applicationsand a potential loss of public ownership and use.

The area west of French Gulch fits well with the long-term administration of the Deadwood area immediately west in Trinity County. Again, BLM is well suited for management of the multiple resource values of this area. Land consolidation would reduce current trespass problems, enhance the long-term protection of this portion of the deer winter range habitat, improve public access, enhance recreational opportunities, and improve overall resource management efficiency.

The Swasey Drive cultural resources ACEC has a number of prehistoric and historic sites which are uncommon in public stewardship. The proximity of a large population center has resulted in ongoing damage to these irreplaceable values. Special management attention is required and designation as an ACEC is warranted.

Lower Clear Creek could provide up to 6% of the anadromous fisheries production of the Sacramento River. Federal interests within the Clear Creek watersheds are considerable with BLM, National Park Service, and U.S. Forest Service astride or very near the creek along the majority of its course. The stream ends at the southern edge of the City of Redding and provides one of two (Sacramento River to Shasta Dam being the other) prime opportunities to develop a greenway connecting this population center to significant Federally-administered public lands. This greenway will benefit local and regional residents alike. The lower portion of the creek can benefit tremendously from community involvement in anadromous salmonid habitat and riparian habitat restoration projects. Above Clear Creek Road bridge, the canyon and Mule Mountain ridge provide additional primitive recreation opportunities, non-motorized access, and a scenic backdrop to users. Maintaining a mineral withdrawal on existing and future public lands within the 100-year flood plain while allowing a recreational mineral collection permit system will enhance BLM's ability to protect and manipulate the riparian zone while allowing non-impairing recreational use. A number of local residents and representatives of local organizations were concerned about disposal of approximately 280 acres of public land north of Cleer Creek Road. This acreage contained locally important resource values with gerry-mandered public ownership boundaries. Clear Creek Road provides a clear demarcation between projected uses of the potential greenway connecting the Sacramento River and Whiskeytown Lake and rural residential development in the uplands. However, in response to the concerns of these local citizens, the 280 acres of public land are made available for transfer to a conservation organization for a period of two years following the Record of Decision for this RMP. Also the southern boundary of Cleer Creek downstream of the Clear Creek Road bridge has been shifted to the top of the bluff to protect the scenic quality and steep slopes of the corridor.

The remainder of the management area has limited apparent public values with the exception of specific parcels for use by local, state, and/or non-profit entities. Provision of open space to benefit local residents, although a noteworthy purpose, is more properly a concern of local governments. The Federal government collectively has provided abundant open space within easy commuting distance of Redding. California's Subdivision Map Act requires local consideration of public needs and uses and encourages the use of development fees to provide for these needs. Use of Federal lands is perhaps a poor substitute for meeting these localized needs dependent on the character and location of these scattered parcels. With development of greenways along Clear Creek and the Sacramento River, the BLM is affirmatively providing additional opportunities with regional importance. Provision of additional open space would principally (if not solely) benefit the adjoining residents. Maintaining Federal ownership of some of the public lands near Redding during the life-span of the RMP is unwarranted based on past local agency demands and BLM's needs to acquire regionally significant values to benefit the public. A consolidated public land ownership pattern will benefit Shasta County residents and Federal taxpayers as well.

The "no surface occupancy" restriction on mineral leasing, and the locatable mineral withdrawals on the specific lands, are warranted to protect the natural and

cultural values identified in certain key areas of this management area. Lesser restrictions, such as those contained in the 43 CFR 3809 Regulations and standard mineral lease terms and conditions, were considered and deemed inadequate to protect these values.

SACRAMENTO RIVER MANAGEMENT AREA

MANAGEMENT AREA: **SACRAMENTO RIVER**

ALTERNATIVE: **NO ACTION**

MAP (in packet): **MAP 3-6a**

I. RESOURCE CONDITION OBJECTIVES

A. Todd and Foster Islands

1. Maintain the islands in their natural condition.

B. Sacramento Island and Cottonwood Creek parcel

1. Maintain the quality and quantity of existing Class I riparian vegetation.

2. Afford a roaded natural recreation experience.

C. Reading Island

1. Maintain the recreation opportunities consistent with a roaded natural classification.

2. Maintain the quality and quantity of existing riparian vegetation.

D. Bend Area

1. Protect the riparian values of the Sacramento River and Paynes Creek improving the condition of Class II riparian habitat along Paynes Creek and the canal system.

2. Within riparian areas enhance (in descending order) water quality, fisheries, wildlife, scenic quality, and recreation.

3. Within upland zones emphasize wildlife and recreation.

   a. Enhance 240 acres of upland habitat to increase carrying capacity for upland fauna.

   b. Increase waterfowl use and nesting potential by developing 160 acres of wetlands.

4. Maintain present good range condition with at least 800 pounds of residual mulch per acre after the grazing season.

5. Maintain key "islands" of oak woodlands at a level of 70 square feet per acre basal area of oak trees along Inks Creek and 35 square feet per acre basal area elsewhere.

6. Protect significant cultural resources.

II. LAND USE ALLOCATIONS

A. Todd and Foster Islands

1. The islands are closed to motorized vehicles.

2. The islands are open to mineral leasing with no surface occupancy.

B. Sacramento Island and Cottonwood Creek

1. The parcels are managed as Roaded Natural

2. Lands within the 100-year flood plain are available for mineral leasing with no surface occupancy. Remaining lands are available for mineral leasing with special stipulations.

C. Reading Island

1. The area is withdrawn from mineral entry.

2. The area is managed as Roaded Natural.

D. Bend Area

1. All public land within the 100-year flood zone is available for mineral leasing with no surface occupancy. Adjacent public lands within the river corridor are available for mineral leasing with special stipulations.

2. Public lands near public roads (excepting the rural Bend area) are managed as Roaded Natural. Remaining public lands are managed as Semi-Primitive motorized.

3. Jellys Ferry and the mouth of the Inks Creek vicinity are closed to camping.

4. Wetlands and Riparian zones are closed to livestock grazing.

5. Fuelwood gathering is limited to dead and down material within 50 feet of designated roads. Other areas should include as feasible 2-4 dead and down trees as well as 2-4 hardwood snags (larger than 10 inches in diameter) per acre.

6. Motorized vehicle use is limited to designated roads and trails.

7. Forage excess to wildlife and residual mulch needs in the upland areas are allocated to livestock grazing during the season of use (November 1 - April 30).

8. All public lands related to water-based recreation are managed as VRM Class II.

9. Acquire private lands as indicated in the Lands Acquisition Handbook.

10. Group uses or events require a Special Recreation Use Permit.

11. Target shooting is limited to a designated area within Section 14, T. 28 N., R. 3 W. All other public lands are open to licensed hunters shooting at game within legal seasons.

12. Designate the riparian zone as an ACEC.

E. Remainder of Management Area

1. Two parcels of land encompassing approximately 80 acres available for disposal via sale.

2. All public land interests not noted above may be available for disposal via exchange on a case by case basis for higher public values elsewhere.

III. MANAGEMENT ACTIONS

A. Todd and Foster Islands

1. Conduct annual inspections to identify any noticeable changes in the natural condition of the islands.

B. Sacramento Island and Cottonwood Creek parcel

1. Conduct annual inspections to identify any noticeable changes in the natural condition and human use of these parcels.

C. Reading Island

1. Maintain the existing mineral withdrawal.

2. Keep the facility open to recreational use on a perennial basis.

3. Maintain the condition of the recreational facilities.

4. Provide staffing to administer the facility during the visitor use season.

D. Bend Area

1. Develop and maintain the following recreational facilities:

   a. Roads from Perry Riffle, Paynes Creek, and Section 1, T. 28 N., R. 3 W., to the entrance from Bend Ferry Road.

   b. Hiking trails along the Sacramento River and Paynes Creek.

   c. Shooting facilities in Section 14, T. 28 N., R. 3 W.

   d. Boat-in camping facilities at Massacre Flat.

   e. Boat access at Jellys Ferry.

   f. Restrooms at Perry Riffle, Massacre Flat, Inks Creek, and Jellys Ferry (existing).

   g. Interpretive signs as necessary.

2. Post and sign public land boundaries road closures, and designated uses.

3. Conduct annual residual mulch monitoring of grazing usage and maintain livestock enclosures.

4. Prepare a fire management plan in cooperation with California Department of Forestry and Fire Protection.

5. Invite the State of California and Tehama County to cooperate with BLM and others in preparing a suitability report for the potential inclusion of the Sacramento River into the National Wild and Scenic Rivers System.

6. Designate the Sacramento River riparian zone an ACEC.

7. Implement vegetation and water management to favor oak woodlands, wetlands, riparian vegetation and dependent species. Incorporate the desired plant community prescriptions for the ecological sites noted in Appendix B of this document.

MANAGEMENT AREA: **SACRAMENTO RIVER**

ALTERNATIVE: **ADMINISTRATIVE ADJUSTMENT**

MAP (in packet): **MAP3-6b**

I. RESOURCE CONDITION OBJECTIVES

A. Bend Area

Same as NO ACTION ALTERNATIVE.

B. Reading Island

Same as NO ACTION ALTERNATIVE.

C. Cottonwood Creek and Sacramento River parcels

1. Protect the riparian values of these scattered public lands.

2. Enhance the resource management efficiency and public service mission of local, state, and Federal agencies as well as conservation organizations via transfer of administration of specific public lands from BLM.

D. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of scattered public land interests within the Sacramento River Management Area.

II. LAND USE ALLOCATIONS

A. Bend Area

Same as NO ACTION ALTERNATIVE.

B. Reading Island

Same as NO ACTION ALTERNATIVE.

C. Cottonwood Creek and Sacramento River parcels

1. Transfer jurisdiction on parcels of public lands on Cottonwood Creek and the Sacramento River above Balls Ferry and below Red Bluff to qualified public agencies or conservation organizations to afford long term protection of the riparian values.

2. Parcels are closed to motorized vehicle use.

3. Withdraw the parcels from mineral entry.

4. Offer for mineral leasing with no surface occupancy.

5. Mineral material disposals are not permitted unless such actions benefit the natural values.

6. The lands are closed to livestock grazing.

7. Manage as Semi-Primitive Motorized (to allow boat access).

8. Manage as VRM Class II.

D. Remainder of Management Area

1. All public land interests not noted above in II A-C are available for exchange.

III. MANAGEMENT ACTIONS

A. Bend Area

Same as NO ACTION ALTERNATIVE.

B. Reading Island

Same as NO ACTION ALTERNATIVE.

C. Cottonwood Creek and Sacramento River Parcels

Contact public agencies and conservation organizations regarding potential administration of Cottonwood Creek and the scattered Sacramento River parcels.

D. Remainder of Management Area

1. Invite the State of California, the counties of Shasta and Tehama, and the interested public to participate in a cooperative report to determine the suitability of Battle Creek and Paynes Creek for inclusion in the National Wild and Scenic Rivers System.

2. Publish Federal Register notices regarding vehicle designations and mineral withdrawals.

3. Conduct resource inventories (archaeological, special status species, hazardous materials, and minerals) on lands available for exchange or administrative transfer.

MANAGEMENT AREA: **SACRAMENTO RIVER**

ALTERNATIVE: **ENHANCEMENT OF NATURAL AND CULTURAL VALUES** (proposed action)

MAP (in packet): **MAP 3-6c**

I. RESOURCE CONDITION OBJECTIVES

A. Sacramento Island

1. Improve and increase the Great Valley - Valley Oak riparian Forest.

2. Improve anadromous salmonid habitat.

3. Enhance existing and develop additional waterfowl habitats.

B. Cottonwood Creek and Sacramento River parcels

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

1. Protect the riparian values of these scattered public lands.

2. Enhance the resource management efficiency and public service mission of local, state, and Federal agencies as well as conservation organizations via transfer of administration of specific public lands from BLM.

C. Hawes Corner

1. Ensure the long term survival of Orcuttia tenuis.

D. Bend Area

1. Protect existing and improve degraded riparian vegetation to Class I and II.

2. Enhance wetlands (native and human made) and dependent species.

3. Conserve archaeological resources and provide research opportunities on selected threatened or damaged sites.

4. Enhance anadromous fisheries.

5. Ensure long term survival of special status species.

6. Maintain and improve, if feasible, scenic quality.

7. Provide semi-primitive recreation opportunities.

E. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of scattered public land interests within the Sacramento River Management area.

II. LAND USE ALLOCATIONS

A. Sacramento Island

1. Designate as a Research Natural Area/ACEC

2. Withdraw from mineral entry.

3. Offer for mineral leasing with no surface occupancy.

4. Allow mineral material disposals only if such actions are intended to enhance the natural values, i.e., anadromous salmonid habitat, waterfowl habitat, or long-term vegetation management.

5. Manage as Semi Primitive Motorized.

6. The area is closed to motorized vehicles.

7. Manage as VRM Class II.

8. The area is closed to livestock grazing.

9. Acquire adjacent available unimproved lands to enhance manageability.

B. Cottonwood Creek and Sacramento River parcels

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

1. Transfer jurisdiction of parcels of public lands on Cottonwood Creek and the Sacramento River above Balls Ferry and below Red Bluff to qualified public agencies or conservation organizations to afford long term protection of the riparian values.

2. Parcels are closed to motorized vehicle use.

3. Withdraw the parcels from mineral entry.

4. Offer for mineral leasing with no surface occupancy.

5. Mineral material disposals are not permitted unless such actions benefit the natural values.

6. The lands are closed to livestock grazing.

7. Manage as Semi-Primitive Motorized (to allow boat access)

8. Manage as VRM Class II

C. Hawes Corner

1. Designate as a Research Natural Area/ACEC.

2. Area is closed to livestock grazing.

3. Area is closed to vehicles.

4. Acquire available, unimproved privately owned portion of Orcuttia tenuis habitat or develop cooperative management agreement to protect the habitat.

D. Bend Area

1. Designate as an Outstanding Natural Area/ACEC.

2. Manage as Semi-Primitive Motorized and Roaded Natural.

3. Offer lands for mineral leasing with no surface occupancy within one mile of the Sacramento River.

4. Vehicle use is limited to designated roads and trails.

5. Manage as VRM Class II.

6. Allow grazing in upland areas as a means to improve the desired plant community. Close the riparian areas to grazing.

7. Permit mineral material disposals only if such action will not adversely affect habitat or management of the desired plant community.

8. Acquire available unimproved lands which (in descending priority): contain high priority habitat along the Sacramento River as depicted in the 1988 Sacramento River Riparian Atlas, front the Sacramento River, provide physical access to public land, contain known/potential wetland or special status species habitat, contain important cultural resources, or facilitate overall public management within the area.

E. Remainder of Management Area

1. All public land interests not noted above in II A-D are available for exchange.

III. MANAGEMENT ACTIONS

A. Sacramento Island

Develop a Research Natural Area/ACEC management plan for Sacramento Island which identifies specific land acquisition and cooperative agreement needs for adjoining private lands, establishes a desired plant community for the river and adjacent ecological sites, identifies waterfowl and anadromous salmonid habitat improvement actions, and depicts necessary management facilities to disallow vehicle use while promoting pedestrian use.

B. Cottonwood Creek and Sacramento River Parcels

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

Contact public agencies and conservation organizations regarding potential administration of Cottonwood Creek and the scattered Sacramento River parcels.

C. Hawes Corner.

Contact adjoining landowner(s) to help protect the Orcuttia tenuis habitat or to purchase the private interests. Secure an administrative easement to provide access for management and install necessary facilities to preclude vehicle or grazing usage of the habitat. Develop a Research Natural Area/ACEC management plan to identify protection and monitoring needs.

D. Bend Area.

Amend or replace the existing Sacramento River Area Management Plan to incorporate the increased geographic focus and specific resource condition objectives of this management alternative. Determine the suitability of Battle Creek and Paynes Creek for inclusion in the National Wild and Scenic Rivers System. Incorporate the results of this determination and attendant management practices into the above area management plan. Incorporate the desired plant community prescriptions for the ecological sites noted in Appendix B of this document. Offer BLM assistance to the State of California and the counties of Shasta and Tehama to cooperatively develop a report to determine the suitability of the Sacramento River between Anderson and Red Bluff for inclusion in the National Wild and Scenic Rivers System.

Based on public demand, explore designation of this area as a National Conservation Area.

E. Publish Federal Register notices regarding designation of three ACEC's, intention to conduct a suitability report for inclusion of Battle Creek and Paynes Creek into the National Wild and Scenic Rivers System, and vehicle designations.

F. Contact public agencies and conservation organizations regarding potential administration of Cottonwood Creek and the scattered Sacramento River parcels.

G. Conduct resource inventories (archaeological, special status species, hazardous materials, and minerals) on lands available for exchange, sale, or administrative transfer.

MANAGEMENT AREA: **SACRAMENTO RIVER**

ALTERNATIVE: **RESOURCE USE WITH NATURAL VALUES CONSIDERATION**

MAP (in packet): **MAP 3-6d**

I. RESOURCE CONDITION OBJECTIVES

A. Sacramento Island

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

1. Improve and increase the Great Valley - Valley Oak Riparian Forest.

2. Improve anadromous salmonid habitat.

3. Enhance existing and develop additional waterfowl habitats.

B. Cottonwood Creek and Sacramento River parcels

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

1. Protect the riparian values of these scattered public lands.

2. Enhance the resource management efficiency and public service mission of local, state, and Federal agencies as well as conservation organizations via transfer of administration of specific public lands from BLM.

C. Hawes Corner

1. Protect the existing Orcuttia tenuis population.

D. Bend Area

1. Enhance non-motorized recreation opportunities.

2. Protect the existing quality and quantity of riparian vegetation.

3. Enhance the anadromous fisheries.

4. Conserve archaeological resources and provide research opportunities on selected threatened or damaged sites.

5. Protect existing wetland habitat and dependent species.

6. Protect special status species.

7. Enhance motorized public access.

8. Continue upland grazing.

9. Allow mineral development.

10. Maintain upland plant communities and associated wildlife.

11. Maintain existing scenic quality.

E. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of scattered public land interests within the Sacramento River Management area.

II. LAND USE ALLOCATIONS

A. Sacramento Island

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

1. Designate as a Research Natural Area/ACEC

2. Withdraw from mineral entry.

3. Offer for mineral leasing with no surface occupancy.

4. Allow mineral material disposals only if such actions are intended to enhance the natural values, i.e.,

anadromous salmonid habitat, waterfowl habitat, or long-term vegetation management.

5. Manage as Semi Primitive Motorized.

6. The area is closed to motorized vehicles.

7. Manage as VRM Class II.

8. The area is closed to livestock grazing.

9. Acquire adjacent lands to enhance manageability.

B. Cottonwood Creek and Sacramento River parcels

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVES.

1. Transfer jurisdiction on parcels of public lands on Cottonwood Creek and the Sacramento River above Balls Ferry and below Red Bluff to qualified public agencies or conservation organizations to afford long term protection of the riparian values.

2. Parcels are closed to motorized vehicle use.

3. Withdraw the parcels from mineral entry.

4. Offer for mineral leasing with no surface occupancy.

5. Mineral material disposals are not permitted unless such actions benefit the natural values.

6. The lands are closed to livestock grazing.

7. Manage as Semi-Primitive Motorized (to allow boat access).

8. Manage as VRM Class II.

C. Hawes Corner

1. Area is closed to grazing.

2. Area is closed to vehicles.

3. Acquire title or develop a cooperative agreement to protect the privately owned portion of the habitat.

D. Bend Area

1. Manage as VRM Class III.

2. Manage as Roaded Natural and Semi-Primitive Motorized.

3. All upland forage excess to wildlife needs are allocated to livestock grazing during the season of use (November 1 - April 30)

4. Fuelwood gathering is limited to dead and down material within 50 feet of designated roads.

5. Motorized vehicle use is limited to designated roads and trails.

6. All public land within the 100 year flood zone is available for mineral leasing with no surface occupancy.

7. Acquire unimproved private lands which (in descending priority): provide physical access to the Sacramento River, provide physical access to public land, facilitate overall public management of the area, contain important or critical habitat, or contain important cultural resources.

E. Remainder of Management Area

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

1. All public land interests not noted above in II A-D are available for exchange.

III. MANAGEMENT ACTIONS

A. Sacramento Island

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

Develop a Research Natural Area/ACEC management plan for Sacramento Island which identifies specific land acquisition and cooperative agreement needs for adjoining private lands, establishes a desired plant community for the river and adjacent ecological sites, identifies waterfowl and anadromous salmonid habitat improvement actions, and depicts necessary management facilities to disallow vehicle use while promoting pedestrian use.

B. Cottonwood Creek and Sacramento River parcels

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE.

Contact public agencies and conservation organizations regarding potential administration of Cottonwood Creek and the scattered Sacramento River parcels.

C. Hawes Corner

Contact adjoining landowner(s) to help protect the Orcuttia tenuis habitat or to purchase the private interests. Secure an administrative easement to provide access for management and install necessary facilities to preclude vehicle or grazing usage of the habitat. Perform annual monitoring to establish the long-term trend of the population under natural conditions.

D. Bend Area

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

Amend or replace the existing Sacramento River Area Management Plan to incorporate the increased geographic focus and specific resource condition objectives of this management alternative. Determine the suitability of Battle Creek and Paynes Creek for inclusion in the National Wild and Scenic Rivers System. Incorporate the results of this determination and attendant management practices into the above area management plan. Incorporate the desired plant community prescriptions for the ecological sites noted in Appendix B of this document. Offer BLM assistance to the State of California and the counties of Shasta and Tehama to cooperatively develop a report to determine the suitability of the Sacramento River between Anderson and Red Bluff for inclusion in the National Wild and Scenic Rivers System.

E. Publish Federal Register notice regarding designation of one ACEC, intention to conduct a suitability report for inclusion of Battle Creek and Paynes Creek into the National Wild and Scenic Rivers System, and vehicle designations.

F. Contact public agencies and conservation organizations regarding potential administration of Cottonwood Creek and the scattered Sacramento River parcels.

G. Conduct resource inventories (archaeological, sensitive species, hazardous materials, and minerals) on lands available for exchange, sale, or administrative transfer.

MANAGEMENT AREA: SACRAMENTO RIVER

RATIONALE FOR THE PROPOSED ACTION (ENHANCEMENT OF NATURAL VALUES)

Map (in packet): Map 3-6c

The Sacramento River is the dominant geographic feature of northern California. Due to its central location and proximity to many towns and cities (including the State capitol), it is attractive and accessible to a large, increasingly urban population. Due to modern human activities, 95% of the native riparian vegetation and wildlife habitat has been destroyed. The river provides 70% of the annual ocean harvest of salmon along the California coastline. This fisheries is imperiled due to continuing habitat loss and degradation.

Although public ownership is limited along much of this important river, public sector leadership is necessary to help restore and protect the sensitive habitat of this nationally significant river. Given the importance of the recreational opportunities and the regional and national significance of the natural values, the segment of the Sacramento River between Balls Ferry Bridge and the gaging station below Sevenmile Creek is considered eligible for inclusion in the National Wild and Scenic Rivers System and should be managed as an Outstanding Natural Area to protect the increasingly important values associated with the river.

Battle Creek and Paynes Creek contain riparian values in excellent condition and warrant consideration for inclusion in the National Wild and Scenic Rivers System.

BLM has taken an affirmative role in the protection of slender Orcutt grass (Orcuttia tenuis). Under the proposed action BLM can further guard against the loss of Orcuttia tenuis habitat and may lessen the need to have the species listed as threatened or endangered by the U.S. Fish and Wildlife Service.

Sacramento Island (not an "island" per se) near Knighton Road is the northernmost high priority critical habitat (in native condition) along the Sacramento River. The location of this increasingly important habitat near a large population center necessitates special management attention and warrants management as a Research Natural Area/Area of Critical Environmental Concern.

The small amount of public land and mineral development restrictions will have little impact on the mineral industry nor the local, regional, or State economy.

Transfer of Cottonwood Creek and Sacramento River parcels south of Red Bluff to other public agencies fully recognizes the natural values of these scattered public lands and provides for simple administration by other agencies equally committed to the habitat.

The "no surface occupancy" restriction on mineral leasing, and the locatable mineral withdrawals on the specified lands, are warranted to protect the natural and cultural values identified in certain key areas of this management area. Lesser restrictions, such as those contained in the 43 CFR 3809 regulations and standard mineral lease terms and conditions, were considered and deemed inadequate to protect these values.

ISHI MANAGEMENT AREA

MANAGEMENT AREA: **ISHI**

ALTERNATIVE: **NO ACTION**

MAP (in packet): **MAP 3-7a**

I. RESOURCE CONDITION OBJECTIVES

A. Battle Creek

1. Produce forage for wildlife and livestock with at least 500 pounds of residual mulch per acre after the grazing season.

2. Maintain existing watershed conditions and water quality.

3. Maintain the present quality and quantity of riparian vegetation at Class II.

B. Deer Creek

1. Afford long-term protection to nesting raptors.

2. Protect archaeological resources.

3. Protect the wilderness values on public land within Section 14, T. 25 N., R. 1 E.

C. Butte Creek

1. Emphasize recreational use within the canyon.

2. Emphasize forestry management outside the canyon

3. Allow mineral commodity production outside the canyon.

4. Protect the anadromous fisheries habitat.

5. Maintain the quantity and quality of riparian vegetation.

D. Oroville

1. Protect the watershed and viewshed of Lake Oroville.

2. Use forestry management practices to enhance or protect other resource values.

3. Enhance upland wildlife habitat.

4. Accommodate recreation use and development.

E. Remainder of Management Area

1. Maintain supply of forest products from available commercial forest lands.

2. Maintain existing good range conditions with at least 400 pounds of residual mulch per acre after the grazing season.

3. Maintain and improve if possible deer winter range habitat conditions.

4. Improve resource management efficiency within the management area through land exchanges on an opportunity basis.

5. Maintain the existing quality and quantity of riparian vegetation on public lands along Butte, Campbell, Chico, Mud and Rock creeks.

6. Protect the anadromous fisheries habitat on public land on Bear Creek and lower Little Cow Creek.

7. Maintain recreational opportunities of the Upper Ridge Nature Preserve in cooperation with the Upper Ridge Wilderness Association.

II. LAND USE ALLOCATIONS

A. Battle Creek

1. Managed as Roaded Natural and Semi-Primitive Motorized.

2. The area is designated as open to motorized vehicle use.

3. Public land in proximity to Battle Creek is offered for mineral leasing with no surface occupancy.

4. Forage in excess of wildlife needs is allocated to livestock.

B. Deer Creek

1. 200 acres of public land is Section 14, T. 25 N., R. 1 E., are designated as wilderness.

2. All public lands outside the wilderness boundary are managed as Semi-Primitive Motorized.

3. Public lands within Deer Creek canyon and the wilderness are designated as closed to motorized vehicles. All other public lands are designated as open to motorized vehicles.

C. Butte Creek

1. 1927 acres of public land are withdrawn from mineral entry. 427 acres of this total have been recommended for revocation of the withdrawal.

2. Recreational mineral collection is permitted within the canyon through a permit system.

3. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

4. The area is managed as Roaded Natural.

5. Vehicles are limited to designated roads and trails.

D. Oroville

1. Public land in Section 32, T. 20 N., R. 5 E., is limited to motorized vehicle use on designated roads and trails.

2. All other public lands are open to motorized vehicle use.

3. The area is managed as Semi-Primitive Motorized and Roaded Natural.

4. The area is offered for mineral leasing with special stipulations on steep, fragile (granitic) slopes surrounding Lake Oroville.

5. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

E. Remainder of the Management Area

1. Campbell, Mud, and Rock creeks are available for mineral leasing with special stipulations.

2. 38 parcels of land encompassing approximately 1300 acres are available for disposal via sale.

3. 20 acres in Section 13, T. 23 N., R. 3 E., are under a Recreation and Public Purposes Act (R&PP) lease to the Paradise Irrigation District.

4. 15 acres in Section 24, T. 31 N., R. 1 E are under an airport lease to Shasta County.

5. 3 parcels are classified for small tracts.

6. 3 lapsed Recreation and Public Purposes Act (R&PP) classifications occur in the area.

7. Numerous waterpower withdrawals exist under BLM and Federal Energy Regulatory Commission authorities.

8. All lands are open to motorized vehicles.

9. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

10. Public land interests are available for exchange for higher public values elsewhere on a case-by-case basis.

III. MANAGEMENT ACTIONS

A. Battle Creek

1. Continue annual monitoring of grazing use.

B. Deer Creek

1. Administer 200 acres of wilderness in cooperation with the Lassen National Forest.

2. Acquire privately owned lands above the diversion dam

C. Butte Creek

1. Complete a recreation management plan for the area.

2. Acquire adjoining lands and easement(s) within the area as identified in the Lands Acquisition Handbook to permit public use and enhance forest management.

3. Monitor seasonal recreational use.

4. Continue the recreational mineral collecting permit system.

5. Revoke the mineral withdrawal on 427 acres and continue the withdrawal on 1500 acres within the recreation use area. Extend the withdrawal as necessary to acquired lands within this use area.

6. Implement the recommendations of the final recreation management plan.

7. Maintain a sustained yield harvest from the available commercial forest land.

D. Oroville

1. Annually monitor the condition of the Martin cemetery plot.

2. Continue implementation of the Coordinated Resource Plan with the California Department of Water Resources (and others) of the management of the watershed.

3. Maintain a sustained yield harvest from the available commercial forest land.

E. Remainder of the Management Area

1. Terminate all classifications, lapsed Recreation and Public Purposes Act (R&PP) leases, and unused waterpower withdrawals.

2. Continue the R&PP lease with the Paradise Irrigation District and consider sale under the R&PP Act.

3. Continue cooperative management of the Upper Ridge Nature Area.

4. Improve an average of at least 100 acres of deer habitat within the entire management area on an annual basis.

5. Continue annual monitoring of grazing use.

MANAGEMENT AREA: **ISHI**

ALTERNATIVE: **ADMINISTRATIVE ADJUSTMENT**

MAP (in packet): **MAP 3-7b**

I. RESOURCE CONDITION OBJECTIVES

A. Forks of Butte Creek

1. Enhance the semi-primitive recreation opportunities within the canyon.

2. Maintain the scenic quality of the canyon.

3. Maintain the anadromous salmonid habitat.

4. Enhance the long-term sustained yield of forest products above the canyon area.

5. Facilitate mineral development in the upland areas.

6. Maintain existing hydroelectric facilities at current levels.

B. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of scattered public land interests within the Ishi management area.

2. Enhance the resource management efficiency and public service mission of local, state, and Federal agencies via transfer of specific public lands from BLM.

3. Afford opportunities to meet specific community development needs for Federally recognized Indian tribes.

II. LAND USE ALLOCATIONS

A. Forks of Butte Creek

1. Withdraw all canyon lands within 1/4 mile of Butte Creek and the West Branch of Butte Creek from mineral entry and allow recreational mineral collection under a permit system. Offer lands within this canyon zone for mineral leasing with no surface occupancy. Manage this canyon zone as VRM Class II. Allow forest management practices only if such actions enhance the long term scenic quality or semi-primitive recreation experience. Designate the canyon zone as an Outstanding Natural Area/ACEC.

2. Manage the entire area as Semi Primitive Motorized.

3. Vehicle use is limited to designated roads and trails.

4. All of the available commercial forest land within Butte Creek canyon would be managed for the enhancement of other resource values. Other available commercial forest land would be managed primarily as restricted. See Appendix G for acreage assigned to the various management categories.

5. Acquire available unimproved private lands which (in descending order) are located on the creek(s), within the ACEC, provide physical access to public lands, or are productive commercial forest lands.

B. Remainder of the Management Area

1. Transfer to Shasta county via Airport Grant or exchange 15 acres of public land at Shingletown Airport in Section 24, T. 31 N., R. 1 E.

2. Active long-term administration of all public land within the study corridor of Mill Creek and/or adjacent to the Gray Davis/Dye Creek Ranch Preserve will be in cooperation with The Nature Conservancy. Management will be consistent with the objective of the approved land use plan of the Preserve.

3. Transfer via exchange, the Recreation and Public Purposes Act (R&PP), or cooperative agreement administrative responsibility of forty acres within the Tehama Wildlife Management Area (Section 6, T. 27 N., R. 1 W.).

4. Transfer via exchange or R&PP to the City of Chico, the County of Butte or other qualified organization title to seven parcels of public land in Big Chico Creek canyon (between Highway 32 and Musty Buck Ridge) encompassing approximately 520 acres. Within two years from approval of the Final RMP the government entities or organizations mentioned above will be given an opportunity to submit R&PP applications for specific parcels prior to the land being offered for exchange. Offer for exchange to any party after two years from approval of the final RMP. If Big Chico Creek is not designated as a component of the National Wild and Scenic River System an additional five parcels and 520 acres would be available for exchange or R&PP under the above conditions.

5. Transfer via R&PP or exchange to the Upper Ridge Wilderness Association or other qualified organization title to approximately 120 acres of public land in Section 35, T. 23 N., R. 3 E. commonly referred to as the Upper Ridge Nature Preserve.

6. Transfer via R&PP or exchange to a qualified state/local agency or non-profit organization administrative responsibility of six parcels of public land encompassing approximately 800 acres in the West Branch Feather River (between Magalia Reservoir and Lake Oroville). Offer for exchange to any party after two years from approval of the Final RMP.

7. Transfer via exchange or R&PP to a qualified organization administrative responsibility of 35 acres of public land in Lower Butte Creek (near Honey Run Bridge) within the NW 1/4 of Section 36, T. 22 N., R. 2 E. Offer for exchange to any party after two years from approval of the Final RMP.

8. Transfer via exchange or R&PP to the State of California all surface and submerged public lands encompassing approximately 6,400 acres within and adjacent to the Lake Oroville State Recreation Area. All lands identified by California or BLM as excess to park needs will be offered for exchange to any party after two years from approval of the Final RMP.

9 . 200 acres of public near the land Middle Fork Feather River (W 1/2 Section 4, T. 20 N., R. 6 E.) are suitable for community development purposes as a reservation for Federally recognized Indian tribe(s). If congressional support is unavailable, offer for exchange to any party after five years from the approval of the Final RMP.

10. Transfer via exchange or R&PP to Butte County or other qualified organization administration of the Forbestown Cemetery encompassing approximately 2.5 acres in the NE 1/4 of Section 10, T. 19 N., R. 6 E.

11. Transfer jurisdiction of twelve parcels of public land encompassing approximately 1050 acres to the Shasta, Lassen, and Plumas National Forests. These parcels include: Pit River (NE 1/4 of NW 1/4 and NW 1/4 of NE 1/4 Section 34, T. 35 N., R. 1 W.), Dan Hunt Mountain portion of a California Spotted Owl Habitat Area (400 acres in Sections 3, 7, and 8, T. 33 N., R. 2 E.), Deadhorse Falls (Section 6, T. 28 N., R 3 E.), Ishi Wilderness (Section 14, T. 25 N., R. 1 E.), Devils Kitchen (NE 1/4, Section 12, T. 25 N., R. 2 E.), Middle Fork Feather River (E 1/2, Section 4, T. 20 N., R. 6 E.) Forbestown (N 1/2, section 10, T. 19 N., R. 6 E.), and Lumpkin Ridge (SE 1/4 of SW 1/4 Section 36, T. 21 N., R. 7 E.)

12. Terminate all lapsed R&PP lease and small tract classifications. Revoke all unused waterpower withdrawals.

13. All public land interests not noted above in II A-B (1-12) are available for exchange.

14. The available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to this management category.

III. MANAGEMENT ACTIONS

A. Develop an integrated resource activity plan for the Forks of Butte Creek which identifies: specific land acquisition needs, required access, cooperative management opportunities, management facility locations, Outstanding Natural Area/ACEC boundaries, permissible actions, and necessary monitoring.

B. Develop a suitability report for the final classification and potential inclusion of Butte Creek in the National Wild and Scenic Rivers System.

C. Develop an agreement with The Nature Conservancy for the long term administration of public lands adjacent to the Gray Davis/Dye Creek Ranch Preserve.

D. Contact the State of California and the counties of Shasta, Tehama, and Butte regarding development of reports addressing the suitability of Battle, Bear, Big Chico, Mill, and Deer creeks for inclusion in the National Wild and Scenic Rivers System. Assist these agencies as feasible in development of these report(s).

E. Develop agreements and/or legislative amendments to modify the boundaries of the Shasta, Lassen, and Plumas National Forests to include the parcels of public land noted above in II B (11).

F. Contact the State of California, Counties of Shasta and Butte, City of Chico, and appropriate local organizations regarding acquisition or administrative transfer of public land parcels noted above in II B (1-10).

G. Publish Federal Register notice(s) regarding vehicle designations, the Outstanding Natural Area/ACEC designation, mineral withdrawal, and the intent to develop a report addressing the suitability of Butte Creek for inclusion in the National Wild and Scenic Rivers System.

H. Conduct resource inventories (archaeological, special status species, hazardous materials minerals, and timber) on lands available for exchange or administrative transfer.

I. Maintain a sustained yield harvest from the available commercial forest land.

MANAGEMENT AREA: **ISHI**

ALTERNATIVE: **ENHANCEMENT OF NATURAL AND CULTURAL VALUES**

MAP (in packet): **MAP 3-8a**

I. RESOURCE CONDITION OBJECTIVES

A. Battle Creek

1. Enhance the anadromous and resident fisheries.

2. Maintain the scenic quality of the corridor.

3. Protect the wildlife habitat within the canyon.

4. Maintain and improve, if possible, the quantity and quality of riparian vegetation.

5. Improve semi-primitive recreation opportunities.

B. Deer Creek

1. Ensure long term protection of raptors within the canyon.

2. Protect the scenic quality of the canyon.

3. Maintain and improve, if feasible, the fisheries habitat of Deer Creek.

4. Conserve the archaeological resources of the canyon.

5. Maintain the primitive recreation opportunities within the canyon.

C. Forks of Butte Creek

1. Protect and enhance the scenic quality of the canyon.

2. Maintain the fisheries habitat.

3. Improve the quality of riparian vegetation to Class I.

4. Maintain semi-primitive recreation opportunities.

5. Protect the historic values of the canyon.

D. Minnehaha Mine

1. Stabilize the ongoing erosion due to past mining practices.

2. Enhance water quality of Big Chico Creek.

3. Enhance the safety of human users of this area.

E. Upper Ridge Nature Preserve

1. Maintain the undeveloped character of Middle Butte Creek.

2. Expand semi-primitive recreation opportunities of the area.

3. Protect the mixed evergreen, riparian, oak woodland vegetation as well as the associated fauna.

F. Baker Cypress

1. Protect the habitat and existing stands of Baker cypress.

2. Encourage research of this species in conjunction with genetic and habitat studies of other stands of Baker cypress.

G. Crystal Hill-Kanaka Peak

1. Afford long-term protection of prehistoric and historic resources.

2. Enhance access by Native American Indian populations and protect traditional uses of heritage areas.

H. Remainder of Management Area

1. Enhance the resource management efficiency and public service mission of local, state, and Federal agencies via transfer of specific public lands from BLM.

2. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of scattered public land interests within the Ishi management area.

II. LAND USE ALLOCATIONS

A. Battle Creek

1. Manage the area as Semi-Primitive Motorized.

2. Vehicle are limited to designated roads and trails.

3. Offer public lands within the corridor for mineral leasing with no surface occupancy.

4. Mineral material disposals are not permitted unless such actions enhance the natural values, i.e. fisheries habitat or riparian vegetation recovery.

5. The corridor is closed to new livestock grazing permits.

6. Manage the corridor as VRM Class II.

7. Acquire available unimproved privately owned interests in the corridor.

B. Deer Creek

1. 200 acres in Section 14, T. 25 N., R. 1 E are designated as wilderness

2. Manage the area as VRM Class I.

3. Manage as Semi-Primitive Non-Motorized.

4. The area is closed to vehicles.

5. Offer public lands for mineral leasing with no surface occupancy.

6. The area is closed to livestock grazing.

7. Designate the area as ACEC.

8. Mineral material disposals are not permitted.

9. Acquire privately owned undeveloped lands within the canyon.

C. Butte Creek

1. Designate Butte Creek canyon between Portuguese Point and the Centerville Bridge as an Outstanding Natural Area/ACEC.

2. Manage as Semi-Primitive Motorized.

3. Vehicle use is limited to designated roads and trails.

4. Withdraw public lands from mineral entry.

5. Recreational mineral collection is permitted within the canyon through a permit system.

6. Forest management actions are permitted only if such actions enhance the natural values or the semi-primitive recreation experience.

7. Manage as VRM Class II.

8. The area is closed to grazing.

9. Acquire available, unimproved private lands to protect scenic quality and enhance the recreational experience.

D. Minnehaha

1. Withdraw from mineral entry.

2. Public land is available for transfer to the State of California or local government via the Recreation and Public Purposes Act (R&PP) or exchange.

E. Upper Ridge Nature Preserve

1. Manage as VRM Class II.

2. Area is closed to motorized vehicles.

3. Withdraw area from mineral entry.

4. Offer for mineral leasing with no surface occupancy.

5. Acquire unimproved private lands and manage area in cooperation with the Upper Ridge Wilderness Association or other qualified organization.

F. Baker Cypress

1. Designate as a Research Natural Area/ACEC.

2. Mineral material sales are permitted only if such actions enhance Baker cypress habitat.

3. Area is closed to grazing.

4. Vehicles are limited to designated roads and trails.

5. Offer for mineral leasing with no surface occupancy.

G. Crystal Hill-Kanaka Peak

1. Vehicles are limited to designated roads and trails.

H. Remainder of Management Area

1. Transfer to Shasta County via Airport Grant or exchange 15 acres of public land at Shingletown Airport in Section 24, T. 31 N., R. 1 E.

2. Transfer jurisdiction of eleven parcels of public land encompassing approximately 850 acres to the Shasta, Lassen and Plumas National Forests. These parcels include: Pit River (NE 1/4 of NW 1/4 and NW 1/4 of NE 1/4 Section 34, T. 35 N., R.1 W.) Dan Hunt Mountain portion of a California Spotted Owl Habitat Area (400 acres in Sections 3, 7, & 8, T. 33 N., R. 2 E.), Deadhorse Falls (Section 6, T. 28 N., R. 2 E.), Devils Kitchen (NE 1/4 Section 12, T. 25 N., R. 2 E.), Middle Fork Feather River (E 1/2 Section 4, T. 20 N., R. 6 E.), and Forbestown (N 1/2, Section 36, T. 21 N., R. 7 E.).

3. Long-term administration of all public land within the Mill Creek study corridor and/or adjacent to the Gray Davis/Dye Creek Ranch Preserve will be in cooperation with The Nature Conservancy. Management will be consistent with the objectives of the approved land-use plan of the Preserve.

4. Transfer via exchange, R&PP, or cooperative agreement administrative responsibility of forty acres within the Tehama Wildlife Management Area (Section 6, T. 27 N., R. 1 W.).

5. Transfer via R&PP or exchange the Martin plot including approximately 2.5 acres to the State of California (SE 1/4, Section 35, T. 20 N., R. 5 E.).

6. Terminate all lapsed R&PP lease and small tract classifications. Revoke all unused waterpower withdrawals.

7. All public land interests not noted above in II A-H (1-6) are available for exchange.

III. MANAGEMENT ACTIONS

A. Develop suitability report(s) for the final classification and potential inclusion of Battle, Butte, Bear, Big Chico and Deer Creeks in the National Wild and Scenic Rivers System.

B. Contact the State of California and County of Tehama regarding development of report(s) addressing the suitability of Mill Creek for inclusion in the National Wild and Scenic Rivers System. Offer BLM assistance as feasible in development of these reports.

C. Develop ACEC management plans for Deer Creek and Forks of Butte Creek, and, an integrated resource activity plan for Battle Creek which identifies specific land acquisition needs, required access, cooperative management opportunities, management facility locations, ACEC boundaries, permissible actions, and necessary monitoring. The results of reports address-

ing the suitability for inclusion in the National Wild and Scenic Rivers System will be included as appropriate.

D. Develop agreements and/or legislative amendments to modify the boundaries of the Shasta, Lassen, and Plumas National Forests to include the parcels of public land noted above in II H (2).

E. Contact the State of California, County of Shasta, and appropriate local organizations regarding acquisition or transfer of public lands noted above in II H (1) and (4-6).

F. Publish Federal Register notices regarding vehicle designations, mineral withdrawals, ACEC designations, and intent to develop a report(s) addressing the suitability of Battle, Butte, Bear, Big Chico and Deer Creeks for inclusion in the National Wild and Scenic Rivers System.

G. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals and timber) on lands available for exchange, or administrative transfer.

H. Develop an agreement with The Nature Conservancy for the long-term administration of public lands adjacent to the Gray Davis/Dye Creek Ranch Preserve.

MANAGEMENT AREA: **ISHI**

ALTERNATIVE: **RESOURCE USE WITH NATURAL VALUES CONSIDERATION** (proposed action)

MAP (in packet): **MAP 3-8b**

I. RESOURCE CONDITION OBJECTIVES

A. Battle Creek (below Manton Road)

1. Improve semi-primitive recreation opportunities.

2. Enhance anadromous fisheries.

3. Maintain and improve the quality and quantity of riparian vegetation.

4. Protect the wildlife habitat of the canyon.

5. Maintain the scenic quality of the area.

B. Deer Creek

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

1. Ensure long term protection of raptors within the canyon.

2. Protect the scenic quality of the canyon.

3. Maintain and improve, if feasible, the fisheries habitat of Deer Creek.

4. Conserve the archaeological resources of the canyon.

5. Maintain the primitive recreation opportunities within the canyon.

C. Forks of Butte Creek

Same as the ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

1. Protect and enhance the scenic quality of the canyon.

2. Maintain the fisheries habitat.

3. Improve the quality of riparian vegetation to Class I.

4. Maintain semi-primitive recreation opportunities.

5. Protect the historic values of the canyon.

6. Maintain the long-term sustained yield of forest products from the available commercial forest land outside the Butte Creek canyon.

D. Minnehaha Mine

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

1. Stabilize the ongoing erosion due to past mining practices.

2. Enhance water quality of Big Chico Creek.

3. Enhance the safety of human users of this area.

E. Upper Ridge Nature Preserve

1. Maintain existing semi-primitive recreation opportunities in cooperation with the Upper Ridge Wilderness Association.

2. Protect the mixed evergreen, riparian and oak woodland vegetation as well as the associated fauna.

F. Baker Cypress

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

1. Protect the habitat and existing stands of Baker cypress.

2. Encourage research of this species in conjunction with genetic and habitat studies of other stands of Baker cypress.

G. Remainder of Management Area

Same as ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

1. Enhance the resource management efficiency and public service mission of local, state, and Federal agencies via transfer of specific public lands from BLM.

2. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of scattered public land interests within the Ishi management area.

II. LAND USE ALLOCATIONS

A. Battle Creek (below Manton Road)

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

1. Manage the area as Semi-Primitive Motorized.

2. Vehicles are limited to designated roads and trails.

3. Offer public lands within the corridor for mineral leasing with no surface occupancy.

4. Mineral material disposals are not permitted unless such actions enhance the natural values, e.g. fisheries habitat or riparian vegetation recovery.

5. The corridor is closed to new livestock grazing permits.

6. Manage the corridor as VRM Class II.

7. Acquire available unimproved lands within the corridor.

B. Deer Creek

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

1. 200 acres in Section 14, T. 25 N., R. 1 E. are designated as wilderness

2. Manage the area as VRM Class I.

3. Manage as Semi-Primitive Non-Motorized.

4. The area is closed to vehicles.

5. Offer public lands for mineral leasing with no surface occupancy.

6. The area is closed to livestock grazing.

7. Designate the area as an ACEC.

8. Mineral material disposals are not permitted.

9. Acquire available unimproved lands within the canyon.

C. Forks of Butte Creek

1. Designate Butte Creek Canyon between the Forks of Butte Creek and Helltown as an Outstanding Natural Area/ACEC.

2. Manage as Semi-Primitive Motorized.

3. Vehicle use is limited to designated roads and trails.

4. Withdraw public lands from mineral entry.

5. Recreational mineral collection is permitted within the canyon through a permit system.

6. Manage as VRM Class II.

7. The area is closed to grazing.

8. Acquire available, unimproved lands to protect scenic quality and enhance the recreational experience.

9. All of the available commercial forest land within Butte Creek canyon would be managed for the enhancement of other resource values. All other available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to these management categories.

D. Minnehaha Mine

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE

1. Withdraw from mineral entry.

2. Public land is available for transfer to the State of California or local government via the Recreation and Public Purposes Act (R&PP) or exchange.

E. Upper Ridge Nature Preserve

1. Area is closed to motorized vehicles.

2. Withdraw area from mineral entry.

3. Offer for leasing with no surface occupancy.

F. Baker Cypress

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

1. Designate as a Research Natural Area/ACEC.

2. Mineral material sales are permitted only if such actions enhance Baker cypress habitat.

3. Area is closed to grazing.

4. Vehicles are limited to designated roads and trails.

5. Offer for mineral leasing with no surface occupancy.

G. Remainder of Management Area

1. Long-term administration of all public land within the Mill Creek Study corridor and/or adjacent to the Gray Davis/Dye Creek Ranch Preserve will be in cooperation with The Nature Conservancy. Management will be consistent with the objectives of the approved land-use plan of the Preserve.

2. Transfer via exchange, the Recreation and Public Purposes Act (R&PP), or cooperative agreement the administrative responsibility of forty acres within the Tehama Wildlife Management Area (Section 6, T. 27 N., R. 1 W.).

3. Transfer via exchange or R&PP to the City of Chico, the County of Butte or other qualified organization title to seven parcels of public land in Big Chico Creek canyon (between Highway 32 and Musty Buck Ridge) encompassing approximately 520 acres. Within two years from approval of the Final RMP the government entities or organizations mentioned above will be given an opportunity to submit R&PP applications for specific parcels prior to the land being offered for exchange. Offer for exchange to any party after two years from approval of the final RMP. If Big Chico Creek is not designated as a component of the National Wild and Scenic River System an additional five parcels and 520 acres would be available for exchange or R&PP under the above conditions.

4. Transfer to Shasta County via Airport Grant or exchange fifteen acres of public land at Shingletown Airport in Section 24, T. 31 N., R. 1 E.

5. Transfer via R&PP or exchange to a qualified state/local agency or non-profit organization administrative responsibility of six parcels of public land encompassing approximately 800 acres in the West Branch Feather River (between Magalia Reservoir and Lake Oroville). Offer for exchange to any party after two years from approval of the Final RMP.

6. Transfer via exchange or R&PP to a qualified organization administrative responsibility of 35 acres of public land in lower Butte Creek (near Honey Run Bridge) within the NE 1/4 of Section 36, T. 22 N., R. 2 E. Offer for exchange to any party after two years from approval of the Final RMP.

7. Transfer via exchange or R&PP to the State of California all surface and submerged public lands encompassing approximately 6,400 acres within and adjacent to the Lake Oroville State Recreation Area. All lands identified by California or BLM as excess to park needs will be offered for exchange to any party after two years from approval from the Final RMP.

8. 200 acres of public land near the Middle Fork Feather River (W 1/2 of Section 4, T. 20 N., R. 6 E.) are suitable for community development purposes as a reservation for Federally recognized Indian tribe(s). If congressional support is unavailable, offer for exchange to any party after five years from the approval of the Final RMP.

9. Transfer via R&PP or exchange to Butte County or other qualified organization administration of the Forbestown Cemetery encompassing approximately 2.5 acres of public land in the NE 1/4 of Section 10, T. 19 N., R. 6 E.

10. Transfer jurisdiction of twelve parcels of public land encompassing approximately 1050 acres to the Shasta, Lassen, and Plumas National Forests. These parcels include: Pit River (NE 1/4 of NW 1/4 and NW 1/4 of NE 1/4 Section 34, T. 35 N., R. 1 W.), Dan Hunt Mountain portion of a California Spotted Owl Habitat Area (400 acres in Sections 3, 7, & 8, T. 33 N., R. 2 E.), Deadhorse Falls (Section 6, T. 28 N., R. 3 E.), Ishi Wilderness (Section 14, T. 25 N., R. 1 E.), Devils Kitchen (NE 1/4, Section 12, T. 25 N., R. 2 E.), Middle Fork Feather River (E 1/2, Section T. 20 N., R. 6 E.) Forbestown (N 1/2, Section 10, T. 19 N., R. 6 E.), and Lumpkin Ridge (SE 1/4 of SW 1/4 Section 36, T. 21 N., R. 7 E.).

11. Terminate all lapsed R&PP lease and small tract classifications. Revoke all unused waterpower withdrawals.

12. All public land interests not noted above in II A-H (1-10) are available for exchange.

13. The available commercial forest land would be managed as restricted. See Appendix G for acreage in this management category.

III. MANAGEMENT ACTIONS

A. Develop suitability reports for the final classification and potential inclusion of Battle, Butte, and Deer Creeks in the National Wild and Scenic Rivers System.

B. Contact the State of California and County of Tehama regarding development of report(s) addressing the suitability of Mill Creek for inclusion in the National Wild and Scenic Rivers System. Similarly contact Shasta and Butte counties, respectively, regarding development of reports addressing the suitability of Bear and Big Chico Creeks. Offer BLM assistance as feasible in development of these reports.

C. Develop an agreement with The Nature Conservancy for the long-term administration of public lands adjacent to the Gray Davis/Dye Creek Ranch Preserve.

D. Develop ACEC management plans for Deer Creek and Forks of Butte Creek and, an integrated resource activity plan for Battle Creek which identifies specific land acquisition needs, required access, cooperative management opportunities, management facility locations, ACEC boundaries, permissible actions, and necessary monitoring. The results of reports addressing the suitability for inclusion in the National Wild and Scenic Rivers System will be included as appropriate.

E. Develop agreements and/or legislative amendments to modify the boundaries of the Shasta, Lassen and Plumas National Forests to include the parcels of public land noted above in II H (10).

F. Contact the State of California, County of Shasta and appropriate local organizations regarding acquisition or transfer of public lands noted above in II H (3-9).

G. Publish Federal Register notices regarding vehicle designations, mineral withdrawals, ACEC designations, and intent to develop a report(s) addressing the suitability of Battle, Butte, Deer, Bear and Big Chico Creeks for inclusion in the National Wild and Scenic Rivers System.

H. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for exchange or administrative transfer.

I. Maintain a sustained yield harvest from the available commercial forest land.

MANAGEMENT AREA: **ISHI**

ALTERNATIVE: **RESOURCE USE**

MAP (in packet): **MAP 3-9a)**

I. RESOURCE CONDITION OBJECTIVES

A. Butte Creek

1. Maximize sustained yield of forest products within the area.

2. Enhance opportunities to explore and develop mineral production.

3. Maintain riparian habitat at present levels.

4. Maintain existing recreational facilities and enhance dispersed recreational opportunities especially in the lower reaches of canyons within the area.

B. Upper Ridge Nature Preserve

Same as NO ACTION ALTERNATIVE.

C. Minnehaha Mine

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

D. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of scattered Federal interests within the Ishi Management Area.

2. Enhance the resource management efficiency and public service mission of local, state, and Federal agencies via transfer of specific public lands from BLM.

II. LAND USE ALLOCATIONS

A. Butte Creek

1. Classify as Roaded Natural.

2. Motorized vehicle use in limited to designated roads and trails.

3. Consolidate and increase, if feasible, public ownership within the area.

4. Area is open to mineral entry except within the eligible corridor noted above until final action of the U.S. Congress regarding inclusion in the National Wild and Scenic Rivers System.

5. The available commercial forest land within Butte Creek canyon would be managed as restricted and for the enhancement of other resource values. All other available commercial forest land would be managed as intensive. See Appendix G for acreage assigned to the various management categories.

B. Upper Ridge Nature Preserve

1. Area is closed to motorized vehicles.

2. Offer for leasing with no surface occupancy.

C. Minnehaha Mine

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

D. Remainder of Management Area

1. Long-term administration of all public land within the Mill Creek Study corridor and/or adjacent to the Gray Davis/Dye Creek Ranch Preserve will be in cooperation with The Nature Conservancy. Management will be consistent with the objectives of the approved land-use plan of the Preserve.

2. Transfer to Shasta County via Airport Grant or exchange fifteen acres of public land at Shingletown Airport in Section 24, T. 31 N., R. 1 E.

3. Transfer via exchange the Recreation and Public Purposes Act (R&PP), or cooperative agreement administrative responsibility of forty acres within the Tehama Wildlife Management Area.

4 Transfer via exchange, or R&PP to the State of California all surface and submerged public lands within the existing boundaries of the Lake Oroville State Recreation Area.

5. Transfer via R&PP or exchange to Butte County or other qualified organization administration of the Forbestown Cemetery encompassing approximately 2.5 acres of public land in the NE 1/4 of Section 10, T. 19 N., R. 6 E.

6. Transfer jurisdiction of twelve parcels of public land encompassing approximately 1050 acres to the Shasta, Lassen, and Plumas National Forests. These parcels include: Pit River (NE 1/4 of NW 1/4 and NW 1/4 of NE 1/4, Section 34, T. 35 N., R. 1 W.), Dan Hunt Mountain portion of a California Spotted Owl Habitat Area (400 acres in Section 3, 7 & 8, T. 33 N., R. 2 E.), Deadhorse Falls (Section 6, T. 28 N., R. 3 E.), ISHI Wilderness (Section 14, T. 25 N., R. 1 E.), Devils Kitchen (NE 1/4, Section 12, T. 25 N., R. 2 E.), Middle Fork Feather River (E 1/2, Section 4, T. 20 N., R. 6 E.), Forbestown (N 1/2, Section 10, T. 19 N., R. 6 E.), and Lumpkin Ridge (SE 1/4 of SW 1/4, Section 36, T. 21 N., R. 7 E.).

7. Terminate all lapsed R&PP leases and small tract classifications. Revoke all unused waterpower withdrawals and other mineral withdrawals.

8. All public lands interests not noted above in II A-D (1-6) are available for exchange.

III. MANAGEMENT ACTIONS

A. Butte Creek

Develop an integrated resource activity plan for Butte Creek which identifies: specific land acquisition needs, required access, forest land productivity, cooperative management opportunities, management facility locations, recreational use zones, and necessary resource conditions monitoring visitor use. The results of reports addressing the suitability for inclusion in the National Wild and Scenic Rivers System will be included as appropriate.

B. Upper Ridge Nature Preserve

Continue cooperative management agreement with Upper Ridge Wilderness Association.

C. Develop an agreement with The Nature Conservancy for the long-term administration of public lands adjacent to the Gray Davis/Dye Creek Ranch Preserve.

D. Contact the State of California and the counties of Shasta, Tehama and Butte regarding development of reports addressing the suitability of Battle, Mill, Deer, Bear and Big Chico creeks for inclusion in the National Wild and Scenic Rivers System. Assist these agencies as feasible in development of these report(s).

E. Develop agreements and/or legislative amendments to modify the boundaries of the Shasta, Lassen, and Plumas National Forests to include the parcels of public land noted above in II D (6).

F. Contact the State of California, counties of Shasta and Butte, City of Chico, and appropriate local organizations regarding acquisition or administrative transfer of public land parcels noted above in II D (2-5)

G. Publish Federal Register notice(s) regarding vehicle designations, ACEC designation and the intent to develop a report addressing the suitability of Butte Creek for inclusion in the National Wild and Scenic Rivers System.

H. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals and timber) on lands available for exchange, or administrative transfer.

I. Maintain a sustained yield harvest from the available commercial forest land.

MANAGEMENT AREA: ISHI

RATIONALE FOR THE PROPOSED ACTION (RESOURCE USE WITH NATURAL VALUES CONSIDERATION)

MAP (in packet): Map 3-8b

Deer Creek has tremendous biological importance due to the diversity and sensitivity of many species, including Peregrine Falcon. The canyon contains nationally significant cultural resources in good to excellent condition. The creek also has regional recreational value along its length varying from hiking trails in Lassen Volcanic National Park to creek-side campgrounds in the Lassen National Forest, to whitewater running within and below the National Forest. The Federal government has a long-term commitment to the unmodified majority of this important stream. Public ownership of this remaining segment of the creek above the Deer Creek Irrigation Diversion Dam will help to ensure the long term protection and management continuity of the stream. Special management attention is necessary to protect the natural values, cultural resources, and adjoining wilderness (Ishi Wilderness) values, while providing opportunities for semi-primitive recreation. Therefore, designation as an ACEC is warranted.

Mill Creek has similar importance to Deer Creek; however, BLM has a very small presence along the stream. The Nature Conservancy is better suited to manage this stream due to the proximity of the Gray Davis-Dye Creek Ranch Preserve.

Butte Creek has regionally significant recreational values, coupled with local, mineral and hydroelectric importance. Consolidation of public land within this area will benefit the public for a very long time. The stream is considered eligible for inclusion in the National Wild and Scenic Rivers System. Competing public demands and proximity to a large population, however, warrant additional management attention and designation as an Outstanding Natural Area/ACEC. The existing mineral withdrawal coupled with a recreational mineral collection program under a permit system has worked well for the public and the natural resources. Expansion of this management strategy will enable BLM to protect sensitive resources while enhancing the recreational experience of most public land users.

Battle Creek has regional recreational, fisheries, and biological values. The most important segment of this creek corridor is below Manton Road (on South Fork). This segment contains the majority of Chinook salmon spawning habitat, generally adequate water flows for recreational pursuits, and nesting raptors including Bald Eagle. The Coleman National Fish Hatchery is also found along this segment. Public land consolidation along this important stretch of stream is warranted due to the aggregate of important values. Active management of this area complements BLM proposed management of the Sacramento River (Bend) area and the direction of the California Department of Fish and Game. Continued BLM administration of public lands above Manton Road hinges on a conclusive determination if this portion of South Fork Battle Creek is suitable for inclusion in the National Wild and Scenic Rivers System. Until that determination is made, BLM should manage these lands in a manner which does not impair any outstandingly remarkable values.

The Baker cypress population is the largest and most vigorous known of this scattered species. Public retention and management as a Research Natural Area/ ACEC is warranted given the limited distribution and current knowledge of the taxonomic/biological importance of this species.

Significant public funds have been spent to mitigate the environmental problems caused by mining at the Minnehaha Mine. It is anticipated that if future mining was allowed at this site the steep topography, serpentine soils and fragile environment would lead to further unacceptable problems. For these reasons the parcel will be withdrawn from locatable mineral entry (refer to discussion on page C-4).

Transfer of specific public lands to the U.S. Forest Service, state, and local agencies recognizes the long term management commitments of these agencies and would simplify overall public land management efficiency.

The Tyme Maidu (Berry Creek) Indian tribe has a long-standing interest in establishing a reservation or other community development on one parcel of public land near Bean Creek. BLM has no authority or mechanism to transfer public lands directly to the tribe or to the fiduciary responsibility of the Bureau of Indian Affairs. The proposed action allows the tribe a period of five years to develop specific legislation in concert with their elected U.S. congressional representatives to establish tribal stewardship.

Based on public input, BLM reassessed a segment of Big Chico Creek and determined that it contains values warranting eligibility for inclusion in the National Wild and Scenic River System. Similarly, BLM determined Bear Creek in Shasta County to be eligible for inclusion. BLM will manage the public land in these corridors to protect their values until subsequent suitability studies are completed. If these streams are determined unsuitable, public lands in Big Chico Creek will be available for transfer to other agencies for a two year period. Public lands along Bear Creek would be available for exchange for higher public values elsewhere.

Under the Enhancement of Natural and Cultural Values alternative (Map 3-8a), BLM considered acquisition in the Crystal Hill - Kanaka Peak area near Lake Oroville State Park. Due to the proximity of California Department of Parks and Recreation administrative personnel, it would be prudent to transfer lands adjoining the state park to their jurisdiction. In the remaining area, locally important cultural resource values are located on privately owned lands. Acquisition and management of these lands is best considered by another agency or organization if even necessary.

YOLLA BOLLY MANAGEMENT AREA

MANAGEMENT AREA: **YOLLA BOLLY**

ALTERNATIVE: **NO ACTION**

MAP (in packet): **MAP 3-9b**

I. RESOURCE CONDITION OBJECTIVES

A. Beegum Gorge

1. Maintain primitive recreation opportunities.

2. Maintain wildlife values.

B. Remainder of Management Area

1. Protect watershed condition and enhance wildlife habitat through prescribed burning.

2. Maintain an annual timber sale plan on approximately 3,400 acres of available commercial forest land.

3. Provide domestic livestock forage for 371 Animal Unit Months from 6,261 acres of public land.

4. Increase available livestock forage via prescribed burning.

5. Maintain the quality and quantity of riparian vegetation of existing riparian zones along Cold Fork, Cottonwood, and Red Bank Creeks.

II. LAND USE ALLOCATION

A. Beegum Gorge

1. Managed as VRM Class II.

2. Managed as Semi-Primitive Non-Motorized.

B. Remainder of Management Area

1. All public lands within the Tehama County portion of the management area are open to motorized vehicle use. Motorized vehicle use on public lands within the Shasta County portion of the management area is limited to designated roads and trails.

2. 640 acres of public land (Section 18, T. 26 N., R. 8 W.) adjoining the Yolla Bolly - Middle Eel Wilderness Area are classified as a Wilderness Study Area. This section of land has been recommended as unsuitable for inclusion in the National Wilderness Preservation System. Pending final action by the U.S. Congress, these public lands will be managed in a manner which will not impair any potential wilderness values.

3. Approximately 6,500 acres of public land are located within the Sunflower Coordinated Resource Plan area. An additional 10,200 acres of public land are located within the Thomes Creek Coordinated Resource Plan area. Prescribed burning within these areas is under multi-party agreements.

4. Approximately 4,200 acres of public land are withdrawn from the surface land laws as part of the Yolla Bolly National Land and Wildlife Management Area. Located completely within the Thomes Creek Coordinated Resource Plan area, this withdrawal was recommended for revocation in 1982.

5. 360 acres of public land within Sections 4 and 9, T. 29 N., R. 9 W. are withdrawn as part of the Arbuckle Mountain Project.

6. Eight parcels of public land encompassing approximately 520 acres are available for disposal via sale.

7. All public land interests not noted above in II A-B (1-6) may be disposed via exchange on a case-by-case basis for higher public values elsewhere.

8. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Beegum Creek

1. Continue prescribed burning in cooperation with the U.S. Forest Service and the California Department of Forestry and Fire Protection.

B. Remainder of Management Area

1. Continue annual monitoring of the condition of the Wilderness Study Area.

2. Continue implementing the Sunflower Coordinated Resource Plan.

3. Amend or terminate the inactive Thomes Creek Coordinated Resource Plan.

4. Revoke the withdrawal for the Yolla Bolly National Land and Wildlife Management Area.

5. Continue the withdrawal for the Arbuckle Mountain Project subject to the review and recommendations of the Federal Energy Regulatory Commission.

6. Conduct annual residual mulch monitoring of grazing usage and maintain livestock enclosures.

7. Maintain a sustained yield harvest from the available commercial forest land.

MANAGEMENT AREA: **YOLLA BOLLY**

ALTERNATIVE: **ADMINISTRATIVE ADJUSTMENT** (proposed action)

MAP (in packet): **MAP 3-10a**

I. RESOURCE CONDITION OBJECTIVES

A. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of BLM administered interests within the management area.

B. Enhance resource management efficiency and the public service mission of Federal agencies via transfer of jurisdiction of specific public lands from BLM.

II. LAND USE ALLOCATIONS

A. Transfer jurisdiction of twelve parcels of public land encompassing approximately 8,000 acres and an additional 1,800 of Federal mineral estate to the Trinity National Forest. These parcels include: Bluford Trail (E 1/2, Section 20, T. 30 N., R. 9 W.) Beegum Gorge, Beegum Peak eyrie (S 1/2 Section 19, Sections 20-22, W 1/2 Section 26, Sections 27-34, T. 29 N., R. 9 W. and Section 4, T. 28 N., R. 9 W.), Tedoc Mountain botanical area (NW 1/4, Section 28, T. 28 N., R. 9 W.), Wells Creek Special Interest Area (SW 1/4 Section 33, T. 28 N., R. 9 W.), Brushy Ridge (N 1/2, Section 24, T 27 N., R. 9 W.), Pettyjohn Road access (S 1/4, Section 20, S 1/2 of NW 1/4 and S 1/2 Section 27 and SW 1/4 Section 26, T. 27 N., R. 8 W.), Maple Creek (Sections 34 & 35, T. 27 N., R. 8 W.) and South Fork Cottonwood Creek (N 1/2 Section 10 and Section 18, T. 26 N., R. 8 W.)

B. All public land interests not noted above in II A are available for exchange.

C. The majority of available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Develop agreement and/or legislative amendment to modify the boundary of the Trinity National Forest to include the public land noted above in II A.

B. Contact the State of California and the counties of Shasta and Tehama regarding development of reports addressing the suitability of Middle Fork Cottonwood Creek and South Fork Cottonwood Creek for inclusion in the National Wild and Scenic Rivers System. Assist these agencies as feasible in development of these reports.

C. Revoke withdrawals for the Yolla Bolly National Cooperative Land and Wildlife Management Area and the Arbuckle Mountain Project.

D. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for exchange.

E. Publish Federal Register notice regarding withdrawal revocation.

MANAGEMENT AREA: **YOLLA BOLLY**

ALTERNATIVE: **ENHANCEMENT OF NATURAL AND CULTURAL VALUES**

MAP (in packet): **MAP 3-10b**

I. RESOURCE CONDITION OBJECTIVES

A. Middle Fork Cottonwood/Duncan Creeks

1. Improve the condition of the deer winter range habitat.

2. Enhance semi-primitive recreation opportunities, especially hunting, hiking, fishing, backpacking, and camping.

3. Maintain good watershed conditions including yield and quality of surface water.

4. Improve forage for livestock.

B. Beegum Gorge

1. Protect the scenic quality of the canyon.

2. Maintain the native fisheries of Beegum Creek.

3. Maintain semi-primitive recreation opportunities especially hiking and fishing.

4. Protect raptors including peregrine falcon within the area.

5. Maintain the quality of existing wildlife habitat along the streamside zone.

6. Maintain watershed conditions and deer winter range habitat conditions through prescribed burning.

C. Sunflower Flat

1. Improve the condition of the deer winter range habitat.

2. Maintain the yield and quality of water within the area.

3. Improve forage for livestock.

4. Provide semi-primitive recreation opportunities.

D. Remainder of the Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of public land interests within the Yolla Bolly Management Area.

2. Enhance resource management efficiency and the public service mission of Federal agencies via transfer of jurisdiction of specific public lands from BLM.

II. LAND USE ALLOCATIONS

A. Middle Fork Cottonwood/Duncan Creeks

1. Manage as VRM Class III.

2. Manage as Semi-Primitive Motorized.

3. Motorized vehicle use is limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd.

4. Acquire available unimproved privately owned lands within the area.

5. Acquire title or develop a cooperative management agreement with the State of California for Section 16, T. 30 N., R. 8 W.

6. Offer for mineral leasing with no surface-disturbing actions permitted between November 15 and April 15.

B. Beegum Gorge

1. Designate as an Outstanding Natural Area/ACEC.

2. Manage as VRM Class II.

3. Manage as Semi-Primitive Motorized.

4. Withdraw the Wild and Scenic Rivers study corridor from mineral entry.

5. Offer for mineral leasing with no surface occupancy.

6. Mineral material disposals are not allowed within the Wild and Scenic Rivers study corridor unless such actions are necessary to enhance fisheries habitat.

7. Vehicles are limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd, physical condition of the roads, and human safety.

8. Acquire unimproved privately owned lands to protect the scenic quality of the canyon, protect raptors within the area, or provide public access.

C. Sunflower Flat

1. Manage as VRM Class III.

2. Manage as Semi-Primitive Motorized.

3. Vehicles are limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd.

4. Offer for mineral leasing with no surface disturbing actions permitted between November 15 and April 15.

5. Acquire unimproved privately owned lands or develop cooperative management agreements to facilitate improving the condition of the deer winter range habitats.

D. Remainder of the Management Area

1. Transfer jurisdiction of ten parcels of public land encompassing approximately 3,100 acres to the Trinity National Forest. These parcels include: Tedoc Mountain botanical area (NW 1/4 Section 28, T. 28 N., R. 9 W.). Brushy Ridge (N 1/2 Section 24, T. 27 N., R. 9 W.), Pettyjohn Road access (S 1/4 Section 20, S 1/2 of NW 1/4 and S 1/2 Section 27, and SW 1/4 Section 26, T. 27 N., R. 8 W.) and South Fork Cottonwood Creek (N 1/2 Section 10 and Section 18, T. 26 N., R. 8 W.)

2. Eight parcels of public land encompassing approximately 520 acres are available for disposal via exchange or sale.

3. All public land interests not noted above in II A-D (1-2) are available for exchange.

III. MANAGEMENT ACTIONS

A. Develop agreement and/or legislative amendment to modify the boundary of the Trinity National Forest to include the public land noted above in II D (1).

B. Develop suitability reports for the final classification and potential inclusion of Middle Fork Cottonwood Creek and Beegum Creek in the National Wild and Scenic Rivers System.

C. Contact the State of California and County of Tehama regarding development of report(s) addressing the suitability of South Fork Cottonwood Creek for inclusion in the National Wild and Scenic Rivers System. Offer BLM assistance as feasible in development of these reports.

D. Develop an ACEC management plan for Beegum Gorge which identifies specific land acquisition needs, required public access, sensitive resource locations, excluded use area, prescribed burning plots, public use areas, and appropriate resource monitoring needs, e.g. fisheries, peregrine, visitor use, and scenic quality. Incorporate the results of the suitability report(s) on Beegum Creek as necessary into this activity plan.

E. Develop integrated resource activity plans for Sunflower Flat and Middle Fork Cottonwood/Duncan Creeks areas to identify specific land acquisition needs, roads necessary for public and administrative access, and sensitive habitat areas which need permanent or intermittent protection. Incorporate the results of the suitability report(s) on Middle Fork Cottonwood Creek as necessary into this activity plan.

F. Revoke withdrawals for the Yolla Bolly National Cooperative Land and Wildlife Management Area and the Arbuckle Mountain Project.

G. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for exchange or sale.

H. Publish Federal Register notices regarding intent to conduct suitability reports, designate ACEC, develop an ACEC management plan, develop integrated resource activity plans, mineral withdrawals, withdrawal revocations, and vehicle designations.

MANAGEMENT AREA: **YOLLA BOLLY**

ALTERNATIVE: **RESOURCE USE WITH NATURAL VALUES CONSIDERATION**

MAP (in packet): **MAP 3-11a**

I. RESOURCE CONDITION OBJECTIVES

A. Beegum Gorge

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

B. Middle Fork Cottonwood Creek

1. Enhance semi-primitive recreation opportunities.

2. Improve the condition of the deer winter range habitat.

3. Maintain watershed conditions including yield and quality of surface water.

4. Improve forage for livestock.

C. Tedoc Mountain

1. Protect the botanical values of Tedoc Mountain in cooperation with the Trinity National Forest.

2. Enhance the long-term sustained yield of forest products on available commercial forest lands.

D. Sunflower Flat - Elkhorn Peak

1. Maintain the long-term sustained yield of forest products on available commercial forest lands.

2. Enhance semi-primitive recreation opportunities.

3. Improve forage for livestock.

4. Maintain the condition of the deer winter range habitat.

E. Remainder of the Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of public land interests within the Yolla Bolly Management Area.

2. Enhance resource management efficiency and the public service mission of local, state, and Federal agencies via transfer of jurisdiction of specific lands from BLM.

II. LAND USE ALLOCATIONS

A. Beegum Gorge

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE.

B. Middle Fork Cottonwood Creek

1. Manage as VRM Class III.

2. Manage as Semi-Primitive Motorized.

3. Motorized vehicle use is limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd.

4. Acquire available unimproved privately owned lands.

C. Tedoc Mountain

1. Withdraw the NW 1/4 of Section 28, T. 28 N., R. 9 W, from mineral entry and offer for mineral leasing with no surface occupancy.

2. Acquire available unimproved privately owned lands within the area.

3. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

D. Sunflower Flat-Elkhorn Peak

1. Manage as VRM Class III.

2. Manage as Semi-Primitive Motorized.

3. Vehicle use is limited to designated roads and trails which may be closed between November 15 and April 15 to protect the wintering deer herd.

4. Acquire available unimproved privately owned lands.

5. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

E. Remainder of Management Area

1. Transfer jurisdiction of Section 18, T. 26 N., R. 8 W. to the Trinity National Forest.

2. All public land interests not noted above in II A-E (1) are available for exchange.

3. The majority of the available commercial forest land would be managed as restricted. See Appendix G for acreage assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Develop agreement and/or legislative amendment to modify the boundary of the Trinity National Forest to include Section 18, T. 26 N., R. 8 W.

B. Develop suitability reports for the final classification and potential inclusion of Beegum Creek, Middle Fork Cottonwood Creek and South Fork Cottonwood Creek in the National Wild and Scenic Rivers System.

C. Beegum Gorge

Same as ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE (III D).

D. Develop an agreement with the Trinity National Forest for the cooperative management of the Tedoc Mountain botanical area.

E. Develop integrated activity plans for the Middle Fork Cottonwood Creek and Sunflower Flat/Elkhorn Peak areas which incorporate the conclusions of the Wild and Scenic Rivers suitability reports, identify specific lands or access acquisition needs, state monitoring standards for vegetation management, identify the desired plant community(s), roads necessary for public and administrative use, and sensitive habitat areas.

F. Revoke areas and withdrawals for the Yolla Bolly National Cooperative Land and Wildlife Management Area and the Arbuckle Mountain Project.

G. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals and timber) on lands available for exchange.

H. Publish Federal Register notices regarding intent to conduct suitability reports, designate ACEC, develop an ACEC management plan, develop integrated resource activity plans, mineral withdrawals, withdrawal revocations, and vehicle designations.

I. Maintain a sustained yield harvest from the available commercial forest land.

MANAGEMENT AREA: **YOLLA BOLLY**

ALTERNATIVE: **RESOURCE USE**

MAP (in packet): **MAP 3-11b**

I. RESOURCE CONDITION OBJECTIVES

A. Duncan Creek, Tedoc Mountain and Elkhorn Peak

1. Enhance the sustained yield of forest products from available commercial forest lands.

2. Improve opportunities to explore and develop mineral commodity production.

3. Maintain and improve, if feasible, forage for livestock especially in the non-forested portions of Duncan Creek and Elkhorn Peak areas.

B. Remainder of Management Area

1. Enhance the ability to acquire high value resource lands within the Redding Resource Area by disposal of public land interests within the Yolla Bolly management area.

2. Enhance resource management efficiency and the public service mission of Federal agencies via transfer of jurisdiction of specific public lands from BLM.

II. LAND USE ALLOCATIONS

A. Duncan Creek, Tedoc Mountain and Elkhorn Peak

1. Vehicles are limited to designated roads and trails.

2. Acquire unimproved private and state lands to enhance manageability.

3. The majority of the available commercial forest land would be managed as intensive. See Appendix G for acreage assigned to the various management categories.

B. Remainder of Management Area

1. Transfer jurisdiction of three parcels of public land encompassing approximately 5,360 acres and an additional 640 acres of Federal mineral estate to the Trinity National Forest. These parcels include: Bluford Trail (E 1/2 Section 20, T. 30 N., R. 9 W., Beegum Gorge (Sections 19-22, and 28-33, T. 29 N., R. 9 W., and Section 18, T. 26 N., R. 8 W.).

2. All public land interests not noted above in II A, B (1) are available for exchange.

3. The majority of the available commercial forest land would be managed as intensive. See Appendix G for acreage assigned to the various management categories.

III. MANAGEMENT ACTIONS

A. Develop agreement and/or legislative amendment to modify the boundary of the Trinity National Forest to include the public land noted above in II B(1).

B. Contact the State of California and the counties of Shasta and Tehama regarding development of reports addressing the suitability of Middle Fork Cottonwood Creek and South Fork Cottonwood Creek for inclusion in the National Wild and Scenic Rivers System. Assist these agencies as feasible in development of these reports.

C. Revoke withdrawals for the Yolla Bolly National Cooperative Land and Wildlife Management Area and the Arbuckle Mountain Project.

D. Conduct resource inventories (archaeological, special status species, hazardous materials, minerals, and timber) on lands available for exchange or sale.

E. Publish Federal Register notice regarding withdrawal revocation.

F. Maintain a sustained yield harvest from the available commercial forest land.

MANAGEMENT AREA: YOLLA BOLLY

RATIONALE FOR THE PROPOSED ACTION (ADMINISTRATIVE ADJUSTMENT)

MAP (in packet): MAP 3-10A

The majority of public lands within this management area have limited public values due to relatively unimportant resources, low recreational demand, and generally poor access. Exceptions are parcels of public land adjacent to the boundary of the Trinity National Forest, most notably Beegum Gorge near Platina. Other exceptions include parcels adjacent to the Yolla Bolly Wilderness Area, Tedoc Mountain Special (Botanical) Interest Area, and several parcels which provide physical access to the National Forest. These parcels lend themselves to long term stewardship by the U.S. Forest Service with a field office (Ranger District Office) near Platina. The very limited amount of available commercial forest land and suitable rangeland are best managed in concert with adjoining and surrounding private landowners. A few citizens were concerned that disposal of public land in this management area could adversely impact deer winter range. The land uses within the deer winter range are very low intensity. Even with the disposal of public land via exchange the overall quality of the deer winter range is expected to remain stable. Moreover, BLM can better utilize these scattered lands to acquire imminently threatened habitat near the Sacramento River.

Revocation of withdrawals for the Arbuckle Mountain Project and the Yolla Bolly National Cooperative Land and Wildlife Management Area are necessary to make these public lands available for disposal via exchange.

Until BLM or other agencies address the suitability for including portions of South Fork and Middle Fork Cottonwood Creeks in the National Wild and Scenic Rivers System, public lands within the study corridor must be maintained in public ownership and managed during the interim period to protect any outstandingly remarkable values associated with the corridors. If BLM determines that these corridors are unsuitable for inclusion, public land interests should be disposed via exchange in conformance with the philosophy of the proposed action, i.e., ADMINISTRATIVE ADJUSTMENT.

TABLE 3-1 FOLLOWS THIS PAGE

TABLE

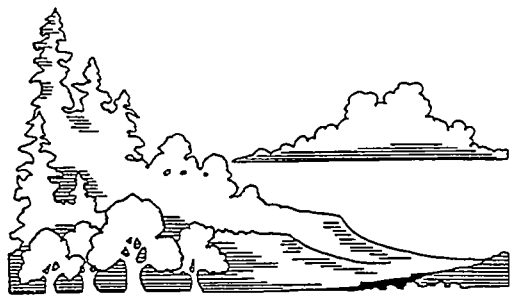
SUMMARY/COMPARISON OF SIGNIFICANT IMPACT

Impact Topic	No Action Alternative	Administrative Adjustment Alternative	Enhancement of Natural and Cultural Values Alternative
Anadromous Salmonid Habitat	BLM currently administers 44 miles of the identified key habitat areas. BLM proposes to acquire 32 additional miles and would consider the exchange of 4 miles.	Approximately 37.5 miles of the key habitat areas would be acquired and 8 miles would be available for exchange.	Approximately 114.5 miles of the key habitat areas would be acquired by BLM or protected under other Federal jurisdiction.
Archaeological Resources	Approximately 125 to 500 sites would be acquired and 75 to 350 sites exchanged to the private sector. Moderate adverse impacts at 10 to 50 sites would be expected.	Approximately 50 sites would be acquired and 100 to 700 sites exchanged to the private sector. Moderate adverse impacts at 12 to 60 sites would be expected.	Approximately 300 to 600 sites would be acquired and 50 to 250 sites exchanged to the private sector, or transferred to conservation groups. Moderate adverse impacts at 7 to 35 sites would be expected.
Deer Winter Range	Currently BLM administers 47,928 acres of deer winter range for three separate deer herds. BLM would consider the exchange of up to 25,000 acres.	Approximately 25,000 acres of deer winter range would be exchanged to the private sector resulting in a 18 to 23 percent reduction in deer population.	Approximately 38,400 acres of deer winter range would be acquired by BLM for the Weaverville deer herd resulting in a 15 to 25 percent increase in population. Approximately 2,800 acres would be exchanged to the private sector with no impacts anticipated.
Scenic Quality	Scenic quality would be safeguarded within the Trinity River Corridor, Sacramento and Upper Klamath rivers, Beegum Gorge, Muletown Road, Forks of Butte Creek, and the Whiskeytown Unit of the National Recreation Area (WNRA).	Scenic quality would be maintained on BLM lands along the Klamath, Shasta, Trinity and Sacramento rivers; and Forks of Butte Creek and WNRA.	Scenic quality would be protected or enhanced throughout most of the Resource Area via VRM I, VRM II and VRM III designations.
Slender Orcutt Grass	Six sites and 7.6 acres of habitat would be protected under BLM administration.	Six sites and 7.6 acres of habitat would be exchanged to the private sector. Conservation easements would eliminate impacts to the transferred sites and habitat.	Nine sites and 113.8 acres of habitat would be protected under BLM administration or cooperative agreements.
Spotted Owl	Moderate degradation to 4,798 acres of key area habitat would be expected and 1,288 acres would be protected.	Moderate degradation to 4,079 acres of key area habitat would be expected and 2,007 acres would be protected.	Approximately 6,086 acres of key area habitat would be protected.
Waterfowl/Wetland Habitat	Current administration of wetland habitat is minimal. BLM would expect to enhance 80 acres of current or potential BLM administered wetlands.	Of the limited amounts of wetland habitat, BLM would enhance approximately 80 acres.	BLM would acquire 31,774 acres of wetlands in the Shasta Valley resulting in a 15 to 25 percent increase in waterfowl production. Also, 200 to 300 acres would be acquired within the Sacramento River Management Area resulting in a 60 to 80 percent increase in waterfowl population.

3-1

TOPICS BY LAND-USE MANAGEMENT ALTERNATIVE

Resource Use With Natural Values Consideration	Resource Use Alternative	Proposed Action Alternative
Approximately 93.5 miles of the key habitat areas would be acquired and 5 miles would be available for exchange.	Approximately 31 miles of the key habitat areas would be acquired and 6 miles would be available for exchange.	Approximately 93.5 miles of the key habitat areas would be acquired and 5 miles would be available for exchange.
Approximately 200 to 400 sites would be acquired and 50 to 150 sites exchanged to the private sector or transferred to conservation groups. Moderate adverse impacts at 9 to 45 sites would be expected.	Approximately 150 to 350 sites would be acquired and 50 to 275 sites exchanged to the private sector or transferred to conservation groups. Moderate adverse impacts at 8 to 40 sites would be expected, and significant degradation or destruction to over 15 sites would be expected.	Approximately 250 to 1,000 sites would be acquired and 150 to 700 sites exchanged to the private sector or transferred to conservation groups. Moderate adverse impacts at 9 to 45 sites would be expected.
Approximately 38,400 acres of deer winter range would be acquired by BLM for the Weaverville deer herd resulting in a 15 to 25 percent increase in population. Approximately 2,800 acres would be exchanged to the private sector with no impacts anticipated.	Of the current 47,928 acres of deer winter range under BLM administration, BLM would consider the exchange of 25,000 acres.	Approximately 38,400 acres of deer winter range would be acquired by BLM for the Weaverville deer herd resulting in a 15 to 25 percent increase in population. Approximately 2,800 acres would be exchanged to the private sector with no impacts anticipated.
Scenic quality would be maintained on BLM lands along the Trinity, Upper Klamath and Sacramento rivers; Shasta/Klamath River Canyon; WNRA, and Shasta Dam Scenic Drive. Scenic quality would be enhanced within Deer Creek.	Scenic quality would be maintained along the Trinity River Corridor and Sacramento River; elsewhere, scenic quality would be degraded.	Scenic quality would be maintained or enhanced throughout most of the Resource Area.
Nine sites and 113.8 acres of habitat would be protected under BLM administration or cooperative agreements.	Nine sites and 113.8 acres of habitat would be protected under BLM administration or cooperative agreements.	Nine sites and 113.8 acres of habitat would be protected under BLM administration or cooperative agreements.
Slight degradation to 4,079 acres of key area habitat would be expected and 2,007 acres would be protected.	Moderate degradation to 4,079 acres of key area habitat would be expected and 2,007 acres would be protected.	Slight degradation to 4,079 acres of key area habitat would be expected and 2,007 acres would be protected.
BLM would acquire approximately 17,480 acres of wetland habitat within Shasta Valley resulting in a 15 to 25 percent increase in waterfowl production. Also, 200 to 300 acres would be acquired within the Sacramento River Management Area resulting in a 60 to 80 percent increase in waterfowl production.	Approximately 16,000 acres of privately owned wetlands would continue to be degraded. Approximately 200 to 300 acres of wetlands within the Sacramento River Management Area would be acquired resulting in a 60 to 80 percent increase in waterfowl population.	BLM would acquire approximately 17,480 acres of wetland habitat within Shasta Valley resulting in a 15 to 25 percent increase in waterfowl production. Also, 200 to 300 acres would be acquired within the Sacramento River Management Area resulting in a 60 to 80 percent increase in waterfowl production.



CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

Chapter 4 describes the expected physical, biological and social consequences of implementing the land-use management alternatives described in Chapter 3. Only those resources, or resource use opportunities, that have been identified as having significant impacts are topics addressed within this chapter. The rationale for discounting additional impact topics from intensive analysis is described in Chapter 1.

Impacts are assessed on a Resource Area wide basis as if each of the five generic land-use management alternatives was fully implemented within all seven management areas; the exception being the Resource Use Alternative which was not considered in the Sacramento River Management Area. For example, impacts identified for the Administrative Adjustment Alternative include the cumulation of impacts that would be expected to occur within the Scott Valley, Klamath, Trinity, Shasta, Sacramento River, Ishi and Yolla Bolly management areas through implementation of that land-use management alternative in each management area. Furthermore, impacts identified for the Proposed Action Alternative include the impacts that would be expected to occur within the seven management areas through implementation of the proposed mix of preferred land-use management alternatives shown in Table S-1.

Mitigating measures designed to avoid or reduce environmental impacts were incorporated into the various alternative management actions. Many of these mitigation measures are noted in Management Guidance Common To All Alternatives and in the Land Use Allocations (for each alternative within each management area) sections of Chapter 3 of this RMP. Impacts identified within this chapter are considered unavoidable net effects after implementation of pertinent mitigation measures.

Chapter 4 is organized to present the analysis methodologies and the predicted environmental consequences in a logical manner to the reader. First, the assumptions serving as the basis of analysis are described. Second, the impact topic descriptions and the method used to estimate the consequences of specific land-use management alternatives are explained. Finally, the consequences (impacts) of implementing the specific land-use management alternatives are described.

ASSUMPTIONS FOR THE ANALYSIS

Environmental consequences, or impacts, were assessed by the interdisciplinary team identified in the List Of Preparers following Chapter 5. To aid in the assessments, it was necessary to assume that certain events would reasonably occur. These assumptions serve as a foundation for assessment work and provide a basis for predicting cumulative impacts. Assumptions were divided into two categories: General Assumptions and Reasonably Foreseeable Development Assumptions. The former set of assumptions are constant over the planning horizon irrespective of the land-use management alternative assessed. The latter set of assumptions provided the resource professionals performing the impact assessments, information regarding the future trend of impacting mechanisms associated with public land management.

This section will first describe the General Assumptions and then will describe the Reasonably Foreseeable Development regarding six significant impacting mechanisms: Community Development and Expansion, Forest Management, Leasable Mineral Development, Locatable Mineral Development, Range Management for Domestic Grazing, and Recreational Use Development.

General Assumptions For Analysis

It is assumed for analysis purposes that:

The NO ACTION ALTERNATIVE serves as a baseline for comparison in assessing all land-use management alternatives.

Actions for each land-use management alternative will be in compliance with all valid existing rights, Federal regulations, and BLM policies. Refer to

Chapter 3 (Management Guidance Common to All Alternatives) for an in depth discussion of these constraints.

Implementation of the approved Resource Management Plan (RMP) will begin 30 days after the Final RMP and record of decision are signed by the BLM California State Director. All implementation actions will subsequently conform to the specific RMP decisions.

The life span of the approved RMP is approximately 15 years. Short-term impacts occur within the 5 year period immediately following implementation; long-term impacts occur after 5 years following implementation.

Each land-use management alternative assessed is feasible with adequate finances and personnel available to implement the decisions.

Environmental consequences are defined as the net unavoidable effects, changes, impacts, etc. to a resource or resource use opportunity after mitigation.

Any net unavoidable negative impacts will be continually evaluated during the life of the plan. Where necessary, adjustments in specific actions will be made to minimize consequential effects based on RMP monitoring.

In areas identified for acquisition, BLM will be able to acquire stewardship responsibility for all available unimproved lands. In areas identified for disposal, all public lands will transfer to private ownership unless specifically stated otherwise.

Reasonably Foreseeable Development

Land Use and Community Development

BACKGROUND

The Redding Resource Area includes a resident population of more than 400,000 people. Populations vary from approximately 14,000 in Trinity County to 173,000 in Butte County. The majority of the regional population live in or near the Chico-Paradise-Oroville area, the Redding-Anderson area, the Sacramento River corridor of Corning-Red Bluff-Cottonwood, Weaverville, Yreka, and Weed-Mt. Shasta areas. Areas of highest sustained and predicted growth include Redding and Chico which are projected to sustain a 3% - 5% annual population growth during the life of the RMP. Of these two cities, only Redding has significant amounts of BLM administered public land within or adjoining its sphere of influence. Towns with a more modest growth projection include Mt. Shasta, Corning, Oroville, Weaverville, Yreka, Paradise and Anderson. Of these communities, significant amounts of public land are found within or adjoining the sphere of influence of Paradise and Weaverville.

PROJECTIONS

Land uses within the Redding Resource Area reflect the economic focus of the regional population. The services, retail trade, governmental, manufacturing and financial industries of the region are concentrated in or near the towns and cities of the Resource Area. The vast majority of the land mass is uninhabited or unimproved lands dominated by public administration in the upland or mountainous regions and private ownership within lower elevations. Public land ownership patterns are not expected to change significantly over the life of the RMP. The U.S. Forest Service is expected to consolidate public land ownership within the critical areas of their forest boundaries. The U.S. Fish and Wildlife Service, and the California Department of Fish and Game, will likely acquire title or conservation easements along segments of the Sacramento River below Red Bluff. Privately funded conservation organizations will aid this effort.

Land uses on private lands outside the towns and cities of the Resource Area will continue to be dominated by limited development or extensive forms of industry. Large acreage ownerships will continue to dominate within the timber, ranching and agricultural industries. More intensive land uses will concentrate around the cities and towns, as mentioned previously. However, an increase in intensive uses is also expected along the Sacramento River with the conversion of range and agricultural lands to rural residential, suburban residential, and planned communities.

Under all land-use management alternatives, including the Proposed Action, land uses will remain non-intensive on the vast majority of public lands transferred to the private sector via exchange or, in a few cases, direct sale. Public lands transferred to the private sector will be dominated by county zoning designations for rangeland, natural habitat (40 to 80 acre minimum), timber production, agriculture and rural residential (5 to 20 acre minimum). Notable exceptions will include former public lands in or adjoining the Redding, Weaverville and possibly, Hayfork spheres of influence. County and city zoning designations in these areas will mainly include rural residential (2 to 5 acre minimum), suburban

residential, public facilities (transfers to local government for public uses), and greenway.

Development to full approved land-use capability will be constrained on the simple majority of public land available for transfer to the private sector due to degree of slope, septic tank limitations and wildfire suppression concerns. These concerns and a limited demand for real estate will result in the actual approved development over the next fifteen years of between 10% and 30% of public land transferred to the private sector in or near Hayfork and Weaverville under any land-use management alternative.

Due to the higher demand for rural and suburban residences near Redding and the limited ability of local government to acquire and manage public lands under the Recreation and Public Purposes Act for specific public purposes, transfers of public land via exchange to the private sector are more likely to occur. Of public land made available for transfer to local government or the private sector under any land-use management alternative, in or near the sphere of influence of Redding, between 25% and 60% will be developed in accordance with currently approved adjoining zoning designations.

Several land-use management alternatives prescribe a dramatic repositioning of current public land. Table 4-1 illustrates the disposition of land tenure by County jurisdiction through full implementation of the proposed action alternative. Included within the table is the amount of private land identified for possible acquisition, the amount of BLM administered land available for disposal, and the subsequent net change in private/public ownership.

The following discussion provides estimates of public lands which will reasonably be transferred to local agencies and the private sector (mainly by exchange) under each land-use management alternative including the Proposed Action. The discussion also includes estimates of public land acreage which will be subsequently developed as intensive land uses, i.e., rural residential (5 acre maximum), suburban residential, commercial, or certain public facilities (schools, landfills, etc.). All estimates consist of ranges to occur over the fifteen year span of the RMP.

NO ACTION ALTERNATIVE

Of public lands presently available for disposal via exchange or sale to the private sector, between 10,000 and 50,000 acres would actually be transferred. Of this range, 500 to 2,500 acres would be zoned and subsequently developed for intensive land uses mainly around Redding, with limited private development near Hayfork and Weaverville. Between 1,000 and 5,000 additional acres of public land would be transferred to agencies for development to benefit local communities.

ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

Of public lands available for disposal via exchange to the private sector, between 30,000 and 110,000 acres would actually be transferred. Of this range, 1,000 to 3,000 acres would be zoned and subsequently developed for intensive land uses mainly around Redding with some private development near Weaverville and Hayfork. Between 2,000 and 6,000 additional acres of public land would be transferred to agencies for development to benefit local communities including Native American Indians.

ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE

Of public lands available for disposal via exchange to the private sector, between 7,000 and 35,000 acres would actually be transferred. Of this range 500 to 1,000 acres would be zoned and subsequently developed for intensive land uses mainly around Weaverville, Redding, and Hayfork. Between 400 and 700 additional acres of public land would be transferred to agencies for development to benefit local communities.

RESOURCE USE WITH NATURAL VALUES CONSIDERATION ALTERNATIVE

Of public lands available for disposal via exchange to the private sector, between 9,000 and 45,000 acres would actually be transferred. Of this range, 1,000 to 3,000 acres would be zoned and subsequently developed for intensive land uses mainly around Redding with some private development near Weaverville and Hayfork. Between 1,800 and 3,000 additional acres of public land would be transferred to agencies for development to benefit local communities including Native American Indians.

Table 4-1

Disposition of Public and Private Lands

Due to Full Implementation of the Proposed Action Alternative

(all numbers are acres)

County	Current BLM Redding R.A.	Proposed Land Acquisition	Disposal To Private Sector	Disposal To Public Sector	Net Change In Private Ownership
Siskiyou	57,300	32,030	45,100	3,788	+13,070
Trinity	48,746	53,680	14,470	155	- 39,210 *1
Shasta	54,832	38,760	30,430	2,860	- 8,330 *2
Tehama	66,264	33,650	40,330	9,160	+ 6,680 *3
Butte	20,376	5,450	8,240	7,247	+ 2,790 *4
Totals	**247,518**	**163,570**	**138,570**	**23,210**	**- 25,000**

Notes:

*1 Trinity County estimates include the acquisition of Grass Valley Creek watershed totaling approximately 22,500 acres of private land.

*2 Shasta County estimates assume that BLM will not acquire additional lands within the NWSRA eligible corridors of Bear Creek, Middlefork Cottonwood Creek, and North Fork Cottonwood Creek.

*3 Tehama County estimates assume that BLM will not acquire additional lands within the NWSRA eligible corridors of South Fork Cottonwood Creek, South Fork Battle Creek and Mill Creek.

*4 Butte County estimates assume that BLM will not acquire additional lands within the NWSRA eligible corridors of Big Chico Creek.

RESOURCE USE ALTERNATIVE

Of public lands available for disposal via exchange to the private sector, between 20,000 and 55,000 acres would actually be transferred. Of this range, 1,000 to 3,000 acres would be zoned and subsequently developed for intensive land uses, mainly around Redding with some private development near Weaverville and Hayfork. Between 700 and 2,000 additional acres of public land would be transferred to agencies for development to benefit local communities.

PROPOSED ACTION

Of public lands available for disposal via exchange to the private sector, between 20,000 and 70,000 acres would actually be transferred. Of this range, 1,000 to 3,000 acres would be zoned and subsequently developed for intensive land uses mainly around Redding with some private development near Weaverville and Hayfork. Between 1,800 and 3,000 additional acres of public land would be transferred to agencies for development to benefit local communities including Native American Indians.

Forest Management

BACKGROUND

During much of the history of northern California, the timber industry was given a great deal of freedom to manage their lands and conduct timber harvesting using methods that they felt were either best for the resources, or which met the most pressing need at the time. Entire communities grew up around mills and a certain degree of stability was created based on the forest products industry and economy.

One of the goals of the industrial forest land owners and to a lesser degree the Government agencies was to "regulate" the forest. Regulation of the forest required replacing the old-growth forests with fast growing healthy stands of desirable commercial species that could be harvested on a predictable or regulated schedule. As the areas of old-growth trees declined and as the population of northern California became more urban and less dependent directly on the timber industry, conflicts began to arise. The conflicts primarily centered around the preservation of the remaining old-growth trees, the animal and plant species that require old growth forest habitat, clear cutting and the use of herbicides. The conflicts have lead to more restrictive regulations on logging practices and the potential for highly restrictive laws prohibiting or severely limiting clear cutting, harvesting of old-growth and the use of herbicides.

Some timber and paper companies are experimenting with alternate sources of wood fiber and also are improving in the utilization of existing sources. Research is being conducted with eucalyptus, poplar and cottonwood plantations as a non-traditional source of fiber for paper and extruded dimensional lumber. Other companies are beginning to utilize smaller logs to produce laminated dimensional lumber. These new sources and processes may offset a small part of the loss of harvestable volume, but the overall result of increased regulation will be a 25-50% reduction in annual harvests in northern California and a potential increase of up to 50% in the cost of processed wood products within the next 15 years.

Within the Redding Resource Area boundary there is approximately 1,700,000 acres of private land that is zoned for timber production (TPZ) and approximately 1,600,000 acres of Federal and State land that is managed primarily for timber production. In 1988, from the same geographic region, there was approximately 1,269 million board feet (1,269 MMBF) harvested. The BLM manages approximately 39,150 acres of land for the production of forest products and harvests approximately 5 million board feet (5 MMBF) of timber per year which is 1.1 % of the acreage and 0.4 % of the harvested volume. Both figures are considered to be regionally insignificant.

Generally the U.S. Forest Service and private industry remove large volumes of timber, up to 20 million board feet, on each timber sale. The BLM having smaller timbered parcels, tends to have relatively smaller sales ranging from 10 thousand board feet for insect salvage to 5 million board feet for the largest size sale. Typically, the BLM timber sale in the Redding Resource Area is between 750 thousand board feet and 2 million board feet using individual selection harvest systems and utilizing tractor yarding on slopes under 45% and cable systems on steeper slopes. Private industry and the U.S. Forest Service average more and larger clear cuts and private industry tends to use tractor yarding on steeper slopes than the BLM.

Road construction for the removal of forest products is dependent on the location and availability of previous access of the specific timber parcel. In many cases no, or minimal, construction is needed due to the proximity to county roads or other roads that were previously built

for logging or other management activities. In other cases extensive road construction may be needed if the harvest is in a remote location.

As a general rule, BLM and other Government agencies manage their timber resources less intensively than large private ownerships. As a result, if BLM acquires timber land from the private sector the harvested volume may decline although the total acres managed may not. The reverse is true if BLM disposes of forest land to the private sector. In either event the impact to the regional timber supply is insignificant.

BLM forest management activities within the Redding Resource Area are directed by the Final Timber Management Plan and Environmental Assessment for Sustained Yield Unit 15, available at the Redding Area BLM office. During an average year, BLM will prepare and sell approximately 75 thousand board feet of standing dead and/or dying timber, 4.9 million board feet of standing green timber, and 200 cords of dead and down fuelwood from 300 to 600 acres. Of the standing/green timber sales, approximately 75% of the trees will be selectively harvested (ie. overstory removal, shelterwood harvest, etc.) and 25% of the trees will be selected in groups (ie. patch cuts and seed tree cuts less than 2 acres in size). Finally, it is reasonable to expect that between 50 to 200 acres of understocked BLM lands will be artificially reforested each year through tree planting.

PROJECTIONS (Forest Management)

NO ACTION ALTERNATIVE

Under the No Action alternative there would not be any significant change in the acreage or the level of intensity of timber harvest as explained above.

ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

Under this land-use management alternative, much of the forested land managed by BLM would be transferred to the U.S. Forest Service or exchanged for land with higher resource values in areas where BLM plans on maintaining a long term presence. It would be reasonable to expect that between 3.7 million board feet and 4.7 million board feet would be harvested each year from BLM lands through implementation of this alternative. As BLM acquired lands elsewhere, additional forested lands may be added to the commercial forested base. The above mentioned harvest levels would be attainable in the long term (70 to 100 years). In the short term (life of the RMP) harvest levels would be between 3.0 to 4.0 million board feet each year through implementation of this land-use management alternative.

ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE

Under this land-use management alternative, the total number of forested acres administered by BLM would increase, however timber would only be harvested to enhance the natural and cultural values of the area. It would be reasonable to expect that between 50 thousand board feet and 500 thousand board feet would be harvested from BLM land each year. These timber sales would include insect and fire salvage sales, and habitat improvement projects.

RESOURCE USE WITH NATURAL VALUES CONSIDERATION ALTERNATIVE

Under this land-use management alternative, more acres would be managed by BLM for forest products but possibly at a slightly reduced intensity from the present situation. It would be reasonable to expect that between 3.6 million board feet and 4.6 million board feet would be harvested each year from BLM lands through implementation of this alternative. As BLM acquired lands elsewhere, additional forested lands may be added to the commercial forested base. The above mentioned harvest levels would be attainable in the long term (70 to 100 years). In the short term (life of the RMP) harvest levels would be between 3.0 to 4.0 million board feet each year through implementation of this land-use management alternative.

RESOURCE USE ALTERNATIVE

Under this land-use management alternative, the forested acres would be managed to maximize the timber output under the limitations of regulations and law. This alternative would increase the forested acres managed by BLM, but would not alter the regional timber yield due to the intensive management regime that would be used by BLM under this alternative. It would be reasonable to expect that between 5.1 million board feet and 6.1 million board feet would be harvested each year from BLM lands through implementation of this alternative. As BLM acquired lands elsewhere, additional forested lands may be added to the commercial forested base. The above mentioned harvest levels would be attainable in the long term (70 to 100 years). In the short term (life of the RMP) harvest levels would be between 4.0 and 5.0 million board feet each year

through implementation of this land-use management alternative.

PROPOSED ACTION ALTERNATIVE

Under this land-use management alternative, regional timber production would be very similar to what would occur under the No Action Alternative. It would be reasonable to expect that between 3.7 million board feet and 4.7 million board feet would be harvested each year from BLM lands through implementation of this alternative. As BLM acquired lands elsewhere, additional forested lands may be added to the commercial forested base. The above mentioned harvest levels would be attainable in the long term (70 to 100 years). In the short term (life of the RMP) harvest levels would be between 2.5 to 3.5 million board feet each year through implementation of this land-use management alternative.

Oil and Gas Development

BACKGROUND

Oil and gas exploration, leasing, and development is governed primarily by the Mineral Leasing Act of 1920, as amended, the 43 CFR 3100 Regulations and by applicable Onshore Oil and Gas Orders and Notice to Lessees. In addition, all operations will be conducted according to the Surface Operating Standards for Oil and Gas Exploration and Development "Gold Book", prepared by the BLM/U.S. Forest Service Rocky Mountain Regional Coordinating Committee.

Oil and gas exploration and development activities progress through four phases that are, in part, sequential and may overlap in time: preliminary exploration; exploratory drilling; development; and abandonment. A detailed discussion of these phases can be found in Appendix B of the Draft San Luis RMP and EIS, which is available for review in the Redding Area BLM office.

Between 1975 and 1988, 44 gas wells have been drilled in the Redding Resource Area, all of which have been on private lands with non-Federal mineral estate. Of the wells drilled, 31 were exploratory and only 13 were production wells. The producing wells in the Resource Area are located in gas fields found in south-central Tehama County, and in southwestern Butte County, west of State Highway 99. These fields are identified in the Redding Geology, Energy, and Mineral Report on file at the Redding Area BLM office. These producing and abandoned gas fields are all in the Sacramento Valley, in the areas identified as having high potential for natural gas on the oil and gas potential maps. Two exploratory wells have also been drilled on private lands in the Hornbrook Basin in northern Siskiyou county. Economic concentrations of hydrocarbons were not found. This is a low potential area for natural gas.

Drilling activity in the Resource Area had peaks of activity in the late 1970's and early 1980's but has languished in the years since 1984. Viewed as a historic pattern of drilling activity, new periods of activity can be expected in the future, but with declining frequency and intensity. Based on historical well data it is reasonable to expect that 20 unsuccessful wells will be drilled, and that 10 producing wells will be drilled for a total of 30 wells during the lifespan of the RMP. The location of future activity will generally be near the historically active areas. Other areas may be tested, particularly if the economic incentives for oil and gas exploration increases due to much higher fuel costs. Most activity will probably occur on private lands and mineral estates, but for analysis purposes in this RMP, it is assumed that half of the activities in the scenarios listed below will occur on public lands or split estate lands. Variation of scenarios, by land-use management alternative selected, is not expected to be significant. These scenarios may occur almost anywhere in the areas described, on public or private lands.

Assumptions for reasonably foreseeable oil and gas exploration and development in the Redding Resource Area are outlined below. The assumptions are presented so that a meaningful and reasoned analysis of the cumulative impacts resulting from the activity over the life of the RMP can be presented. The assumptions are based on historical drilling activity in the Sacramento Valley and Hornbrook Basin, as well as the oil and gas potential for the area.

PROJECTIONS FOR EXPLORATION (Oil and Gas)

1. Exploration wells encountering limited reserves of oil or gas may not be economically producible.

2. Future exploratory drilling will most likely be conducted in the high potential areas, although a lesser amount will occur in the moderate potential areas, and limited activity may occur in areas with low potential.

3. Twenty exploratory wells will be drilled over the life of the RMP.

4. The average disturbance for each well pad will be four acres.

5. The average width of disturbance for access roads, including a 20 foot roadway and ditches, will be 40 feet.

6. The average length of road constructed for exploration is one mile, and the total disturbance is five acres.

7. Exploratory drilling operations will require three to eight months per well. A non-producing well and well site will be reclaimed within three years.

8. Acreage temporarily disturbed by exploratory drilling operations will be 9 acres per well, and the total acreage temporarily disturbed by exploration will be 180 acres.

PROJECTIONS FOR DEVELOPMENT (Oil and Gas)

1. Two exploratory wells will encounter hydrocarbons in sufficient quantities to warrant field development.

2. Two fields will be developed with an average size of 505 acres, requiring an average of five wells per field for a total of ten producing wells.

3. Production will be piped to market.

4. Exploratory and development wells will continue to have all service operations (cementing, logging, bits, testing, etc) provided by established service organizations in the Sacramento and San Joaquin Valleys. The major benefit to the local economy would continue to be royalty share received by local school districts, property taxes, and wages paid.

5. The initial disturbance will be 9 acres per well, and 3 acres will be reclaimed within three years. The remaining 6 acres will remain disturbed for the life of the field plus three years, a total of approximately 20 years.

6. One third of the existing gas fields will be abandoned. The areal extent of these fields will total approximately 1500 acres and 270 disturbed acres will be reclaimed.

Geothermal Resources Development

BACKGROUND

The leasing, exploration, and development of geothermal energy resources is governed by the Geothermal Steam Act of 1970, as amended, Federal Regulations at 43 CFR 3200, and all applicable Geothermal Resources Operational Orders.

There has been no geothermal exploration or development on public lands or split estate lands in the Redding Resource Area. Drilling of a few temperature gradient holes has occurred in the Shasta-Trinity National Forest in the vicinity of Mount Shasta, and in the Medicine Lake Highlands to the east. Some direct use of low temperature hot springs presently occurs at Big Bend, Shasta County and has historically occurred at Keswick Hot Springs in Siskiyou County.

Exploration and Development scenarios for the Redding Resource Area are divided into different areas. Area 1 is the low potential area comprising the Sacramento Valley region, Area 2 is the moderate potential area in the Cascade Mountain Range, and Area 3 is the low potential areas not included in Area 1.

Variation of scenarios, by management alternative selected, is not expected to be significant. These scenarios may occur almost anywhere in the areas described, on public or private lands.

PROJECTIONS

Area 1

Area 1 comprises the parts of the Resource Area that include the Sacramento Valley. Conclusive data for Area 1 is available from temperature gradients taken in oil and gas wells drilled in the area. The potential for geothermal resources occurring here is for geopressurized reservoirs of warm water at depth. An average temperature gradient of 1.379 degrees F/100' can be calculated. This is slightly less than the average temperature gradient found in non-geothermal areas which is 1.4 degrees F/100'. This does not, however, rule out the possibility of low temperature development such as ground-water heat pumps, fish hatcheries, swimming pools, biodegradation, and fermentations. All of these uses require water temperatures between 68 degrees F and 86 degrees F. Temperatures of 68 degrees F could be encountered at a depth of about 600' and 86 degrees F could be encountered at 1900'. For most circumstances it would currently be uneconomic to drill to these depths for the uses listed above.

A. Exploration Scenario

1. One geothermal exploration well will be drilled in Area 1.

2. The exploration well will be a small diameter temperature-gradient well drilled to 1000' with a small rotary core rig.

3. The disturbance of the well site will be about 100' by 200'.

4. No roads will be required; brush will be cleared to accommodate a 10' wide vehicle.

5. Drilling will last for three weeks; the well will normally be abandoned and the site reclaimed after one year.

B. Development Scenario

1. Two development wells will be drilled; one for production and one for injection.

2. The depth of these wells will be 1000 feet.

3. The utilization facility will consist of a fish hatchery, biodegradation or fermentation plant, or ground-water heat pump facility.

4. Maximum disturbance for the entire project will be one acre.

Area 2

Area 2 comprises all of the areas identified as having moderate potential. As there has been no exploration or development in these areas, the potential is based only on interpretation of geological data and inference.

A. Exploration Scenario

1. 10 temperature gradient wells will be drilled to depths of 4000'.

2. The wells will be drilled with a truck-mounted core rig.

3. Well site size will be 200' by 200'.

4. Access will be through temporary roads cut through the brush and trees. Some earth may have to be removed in rough terrain. Total road width will be 15'.

5. Drilling time will average five weeks.

6. Wells are normally abandoned and the sites restored within one year of their completion.

B. Development Scenario

1. One electrical-generation facility will be built:

i. The powerplant will have a 10 megawatt capacity.

ii. The plant will be a double-flash design.

iii. Total disturbed acreage for the plant and access roads will be 10 acres.

iv. The plant will be fed by 4 production wells and one injection well.

v. Each well will be drilled with a rotary rig to a depth of 8000'.

vi. Each well site will require 2 acres of disturbance.

vii. access to the well sites will be on roads cut 20 feet wide including ditches. Roads will be one mile long.

viii. Pipelines from the wellsite to the powerplant will be one mile long and require a 20 foot wide path of disturbance.

ix. Wells will take 6 weeks each to drill.

x. Transmission lines from the powerplant to the nearest tie-in point will be 50 miles and require a 20 foot wide disturbance.

2. Four direct-use facilities will be built:

i. Each facility will require one acre of disturbance.

ii. Each facility will be fed by one production well and one injection well.

iii. Each well will be drilled to 2000'.

iv. Each well site will have one acre of disturbance.

v. Access to the well site will be on roads built 20 feet wide including ditches. Roads will be one mile long.

vi. Pipelines from the wellsite to the powerplant will be one mile long and require a 20 foot wide disturbance.

vii. Wells will take four weeks to drill.

Area 3

Area 3 consists of the areas identified as low potential that are not within the Sacramento Valley. As there has been no exploration or development in these areas, the potential is based only on geological data interpretation and inference.

A. Exploration Scenario

1. 2 temperature gradient wells will be drilled to depths of 4000'.

2. The wells will be drilled with a truck-mounted core rig.

3. Well site size will be 200' by 200'.

4. Access will be through roads cut through the brush and trees. Some earth may have to be removed in rough terrain. Total road width will be 15'.

5. Drilling time will average five weeks.

6. Wells will be abandoned and the sites restored within two years of their completion.

B. Development Scenario

1. One direct-use facility will be built:

   i. The facility will require one acre of disturbance.

   ii. The facility will be fed by one production well and one injection well.

   iii. Each well will be drilled to 2000'.

   iv. Each well site will have one acre of disturbance.

   v. Access to the well site will be on roads cut 20 feet wide including ditches. Roads will be one mile long.

   vi. Pipelines from the wellsite to the powerplant will be one mile long and require a 20 foot wide disturbance.

   vii. Wells will take four weeks to drill.

Locatable Minerals Development

BACKGROUND

Recent locatable mineral activities in the Redding Resource Area have consisted mostly of prospecting for and mining of gold, both lode and placer; and sand and gravel mining on pre-1955 mining claims. Some exploration activities for copper, zinc, and associated precious metals have also occurred. Some mining claims, most of which are inactive, are located for silver, copper, lead, zinc, platinum, chrome, limestone, or other minerals. Locatable mineral development occurs on BLM, U.S. Forest Service and private lands in the Resource Area.

In general, the frequency of mining activity in the Resource Area directly correlates with mineral potential and the location of mining claims and existing mines and known mineral deposits. Most locatable mineral mining occurs in high or moderate potential areas and little activity occurs in low or no potential areas. Locatable mineral development is most likely in the Klamath Mountains and Sierra Nevada geologic and geomorphic provinces.

Most of the mining activities in the Resource Area, which are more than casual use, consist of placer mining or small underground lode mining, and the often attendant residential occupancy. Underwater suction dredging for placer gold in stream and river bottoms, is seasonally very popular in the Resource Area and is usually considered to be casual use. Suction dredging is closely regulated by the California Department of Fish and Game, and when conducted according to state regulations, in and of itself, causes little adverse environmental impact. Most of the dry land "high bank" placer operations occur within the alluvium covered bottoms of stream and river valleys and can adversely effect riparian vegetation and wildlife habitat, water quality, fisheries, and scenic values. Lode mining activities are primarily centered around small underground gold vein deposits, with surface disturbing activities typically occurring with exploration trenching, road construction, and waste rock disposal on non-BLM managed lands. Some open pit mining has occurred, primarily for massive sulfide deposits.

Since the implementation of the 43 CFR 3809 Regulations in January of 1981, the Redding Resource Area has received, on average, approximately 22 Notices and Plans of Operation each year. Currently, approximately 120 of these Notices and Plans continue to be "active", that is, mining related work continues on some basis, reclamation has not been performed, or work has ceased but the miners wish to continue the operations at some indeterminate time in the future. It is estimated that only half of the Notice and Plan level mining activities, occurring in the Resource Area, comply with the 43 CFR 3809 Regulations by properly notifying the BLM before starting work. Total surface disturbance of individual mining operations tends to be less than 5 acres and is, therefore, usually not subject to a Plan of Operations.

The two exploration and development scenarios below describe the normal sequence of events which can occur on lode and placer deposits. Some or all of the elements may be present in each event. The range in

number of events is due to many factors. Some of these are: fluctuation in mineral prices, availability of land open to mineral location, and discovery of new mineral deposits.

Variation of scenarios below, due to selection of different land-use management alternatives, is not expected to be significant. Mining level intensities will generally and gradually decline in withdrawn areas, but may never cease, due to the grandfathered rights of older claims.

It is estimated that approximately ten percent of all locatable mineral mining activities occur on BLM managed public land in the Redding Resource Area. The majority of activities occur on U.S. Forest Service managed lands, and a small portion on private lands. This ten percentile is estimated by calculating the percentage of mining claims on BLM managed lands to total mining claims (10%), and comparing the number of notices and plans of operations on U.S. Forest Service and BLM managed lands (approximately 10 to 1). The number of actions occurring on BLM managed lands is considered to be ten percent of the figures given in the scenarios below.

PROJECTIONS (Lode Mining)

1. Claim location (staking)- consisting of vehicular access, surveying, monumenting, signing, and brushing of claim boundaries. Work is accomplished with survey equipment, hand tools, wheeled vehicles, and human labor. Very minimal and temporary surface disturbances result from these activities. On private lands and mineral estates much of this step is eliminated. The number of lode claims located each year will probably range from 100 to 1000 within the Resource Area.

2. Prospecting- using various geochemical and geophysical methods, geologic mapping, limited sampling of soils, rock, plants, and suspected ore bodies for analysis via chemical analysis or fire assay. Short term camping in the prospecting area sometimes occurs. Work is accomplished with hand tools, electrical apparatus, wheeled vehicles, and human labor. Very minimal and temporary surface disturbances result from these activities. Mining claim assessment work often falls in this category. This type of activity will probably occur in the Resource Area from 250 to 2500 times a year.

3. Exploration work- consisting of: surface trenching, core drilling, road construction or improvement, removal of vegetation and soil, bulk sampling of surface rock, refurbishing old underground workings, and new tunneling underground. Some removal of small amounts of ore is likely to occur. Short term camping at the exploration site(s) often occurs while these activities are being conducted. Equipment used at this stage can consist of what is used during prospecting plus backhoes, caterpillar-type dozers, loaders, graders, heavy trucks, air compressors, rock drills, electrical generators, mine timbers, and explosives. Surface disturbances consist of new and regraded old roads, trenches and small pits, cleared and leveled working areas, and tailings disposal at or near mine entrances. Generally, up to five acres per exploration project, mostly from road work, can be anticipated. Mining claim assessment work often falls in this category. Lode exploration is likely to occur at 100 to 1000 sites per year in the Resource Area.

4. Mine development occurs when an ore body has been found and consists of: road construction or improvement, equipment setup, site preparation-vegetation removal, topsoil and overburden removal, underground tunneling, refurbish old buildings and underground workings, establish miners camp, construct settling pond(s), develop water supplies via pipelines and reservoirs, install power lines and cutting of timber for use in the mine. Some removal of small to moderate amounts of ore is likely to occur. Moderate to long-term occupancy (camping) can occur at this stage if warranted. Equipment used during development can be the same as used during exploration; plus, mucking machines, ore cars, and large amounts of construction materials. Additional surface disturbances of up to five acres per mine can be anticipated. Some mine development is likely to occur at 50 to 250 mines per year within the Resource Area.

5. Mineral extraction often occurs concurrently with mine development and consists of: excavation of ore and waste rock using dozers, backhoes, loaders, mucking machines, drilling and explosives; moving ore and waste material using ore cars, trucks, or conveyor belts; processing ore using grizzly (sorting) screens, crushing or grinding mills, jigs, flotation cells and shaker tables; shipping ore for offsite processing via trucks; recycle water in ponds via pumps; mining waste material generated is used for backfilling or placed in above ground dumps, general operation of heavy equipment, residential occupancy. Up to five acres of additional surface disturbance can be expected from this stage, generally from surface mining of ore, processing of ore material and above ground waste material placement.

Significant mineral extractions are likely to occur at 50 to 250 mines per year.

6. Reclamation can occur after the prospecting, exploration, mine development or mineral extraction phases depending on the success of the miner in finding and developing an economic ore deposit. Reclamation consists of: removal of equipment, construction material, hazardous materials, and structures; recontouring surface disturbances, elimination of public safety hazards (pits, adits, highwalls), replacement of stockpiled topsoil onto disturbed/recontoured areas, revegetation. Roads may or may not be completely reclaimed depending upon planned or prospective future uses, i.e. fire access/breaks, other resource uses, future mining use. Past experience has shown that reclamation may be limited, in many cases, to natural revegetation and slope reduction due to abandonment or long term non-use of the mine/exploration site. Increased emphasis on BLM minerals program through adequate funding and personnel levels may alleviate this problem in the future.

7. Patent issuance can be the final stage in locatable mineral development on public land. By statute, if a claim is determined to be valid by BLM, then the owner of that claim can receive fee title (patent) to the land through application and purchase. This is a non-discretionary BLM action which could occur at any time during the life of the claim and is not subject to the requirements of NEPA. In most cases, patent is granted for both the surface and mineral estates. In the past ten years, no lode mining claim on BLM managed public lands has received patent in the Redding Resource Area. It is believed, that if they are ever subjected to the close scrutiny of a validity examination, only a small fraction of the total number of claims in the Resource Area would be considered valid. Many claims are held for speculation purposes and on the hope of some day making a discovery of an ore deposit.

PROJECTIONS (Placer Mining)

1. Claim location (staking)- consisting of vehicular access, surveying, monumenting, signing, and brushing of claim boundaries. Work is accomplished with survey equipment, hand tools, wheeled vehicles, and human labor. Very minimal and temporary surface disturbances result from these activities. On private lands and mineral estates much of this step is eliminated. The number of placer claims located each year in this Resource Area will probably range from 200 to 2000.

2. Prospecting consists of sampling of soils, gravels, and in water courses, and occasionally geophysical testing of suspected ore deposits. Short term camping in the prospecting area often occurs. Work is accomplished with hand tools, sluice boxes, suction dredges, wheeled vehicles, and human labor. Very minimal and temporary surface disturbances result from these activities. Mining claim assessment work often falls in this category. This type of activity will probably occur from 1000 to 10,000 times a year within the Resource Area boundaries.

3. Exploration work can consist of: surface trenching, sample drilling, road construction or improvement, removal of vegetation and soil, construction of settling ponds, suction dredging, and bulk sampling and processing of placer material. Removal of small amounts of ore is likely to occur. Short to medium term camping at the exploration site often occurs while these activities are being conducted. Equipment used at this stage can consist of what is used during prospecting plus backhoes, caterpillar-type dozers, loaders, graders, heavy trucks, electrical generators, screening devices, and portable washplants. Surface disturbances consist of new and regraded old roads, trenches and small pits, cleared and leveled working areas, and settling ponds. Generally, up to three acres per exploration project, mostly from road work, can be anticipated. Mining claim assessment work often falls in this category. Placer exploration is likely to occur at 200 to 2000 sites per year within the confines of the Resource Area.

4. Mine development occurs when an ore body has been found and consists of: road construction or improvement, equipment setup, site preparation-vegetation removal, topsoil and overburden removal, establishment of miners camp, construction of settling pond(s), development water supplies via pipelines and reservoirs, and installation of power lines. Moderate to long-term occupancy (camping) can occur at this stage if warranted. Equipment used during development can be the same as used during exploration; plus large amounts of construction materials. Additional surface disturbances of up to five acres per mine can be anticipated. Some mine development is likely to occur at 50 to 500 mines per year, located in the Resource Area.

5. Mineral extraction often occurs concurrently with mine development and consists of: excavation of ore and waste rock using dozers, backhoes, loaders, suction dredges, moving ore and waste material using trucks, or conveyor belts; processing ore using grizzly

(sorting) screens, sluice boxes, and washplants; recycle water in ponds via pumps; surface mining waste material generated is used for backfilling pits; general operation of heavy equipment, residential occupancy. Additional surface disturbance of up to two acres can be expected from this stage, generally from surface ore removal, processing of ore material and above ground waste material placement. Significant mineral extraction will probably occur at 50 to 500 mines per year in the Resource Area.

6. Reclamation can occur after the prospecting, exploration, mine development or mineral extraction phases depending on the success of the miner in finding and developing an economic ore deposit. Reclamation consists of: removal of equipment, construction material, hazardous materials, and structures; recontouring surface disturbances, elimination of public safety hazards (pits, adits, highwalls), replacement of stockpiled topsoil onto disturbed/recontoured areas, revegetation. Roads may or may not be completely reclaimed depending upon planned or prospective future uses, i.e. fire access/breaks, other resource uses, future mining use. Past experience has shown that reclamation may be limited, in many cases, to natural revegetation and slope reduction due to abandonment or long term non-use of the mine/exploration site. Increased emphasis on BLM minerals program through adequate funding and personnel levels may alleviate this problem in the future.

7. Patent issuance can be the final stage in locatable mineral development on public land. By statute, if a claim is determined to be valid by BLM, then the owner of that claim can receive fee title (patent) to the land through application and purchase. This is a non-discretionary BLM action which could occur at any time during the life of the claim and is not subject to the requirements of NEPA. In most cases, patent is granted for both the surface and mineral estates. In the past ten years, only one mining claim on BLM managed public land has received patent in the Redding Resource Area. It is believed, that if they are ever subjected to the close scrutiny of a validity examination, only a small fraction of the total number of claims in the Resource Area would be considered valid. Many claims are held for speculation purposes and on the hope of some day making a discovery of an ore deposit.

Range Management for Domestic Grazing

BACKGROUND

Grazing of domestic livestock has been a continuous component of the regional economy since the Gold Rush era of the mid 1800's when great demands for beef were established. Livestock is predominantly grazed on non-irrigated rangelands within the five counties of the Redding Resource Area. Rangeland acreage within these counties varies considerably from 11% in Trinity to 55% in Tehama, with Shasta (27%), Butte (34%), and Siskiyou (42%) falling between. Ranch size and carrying capacity are quite variable throughout this area, with an average operation producing around 300 to 500 head of beef cattle. Most ranches are still locally owned, family operations, even though an increasing number are being sold to corporations and multi-ranch absentee owners. Cow-calf operations are the dominant practice, involving grazing, breeding and calving during the fall, winter, and spring months, and transporting livestock to high elevation summer grazing ground that are usually out of the Redding Resource Area. The only exception is Siskiyou County which has enough irrigated rangeland to retain its cattle throughout the year.

Most of the existing rangelands within the Resource Area are grazed because they are presently unsuited for other land uses and not because they are highly productive for livestock forage. These lands are too remote, steep, dry, and/or rocky to be economically suited for other applications. Thus, they have become traditional grazing areas by default, especially in Tehama and Siskiyou counties, and will retain this tradition for quite some time.

During the last decade, a modern historic trend has accelerated the conversion of some rangelands in northern California to more intensive types of land uses which includes rural residential, suburban residential, irrigated cropland, and other commercial uses. This trend has been most notable in Butte and Shasta Counties due to the expanding commerce centers of Redding, Chico, and Oroville. In Tehama County, rangeland is being converted to rural residential uses near Red Bluff and the Sacramento River. Other Tehama rangelands are being converted to irrigated cropland. The limited amount of rangeland in Trinity County coincides generally with the area of increased development near Weaverville, Hayfork, and the Trinity River. These trends will continue making ranching near population centers increasingly impractical during the planning horizon of this RMP. At the same time, the general public adjoining these ran-

gelands will increasingly become concerned about the loss of amenity values of rangelands, e.g. open space, wildlife habitat, watershed etc., as these lands are converted to developed uses. These concerned citizens will likely have a little success in halting the conversion process. Even with the gradual decline in rangeland acreage, livestock grazing will continue as long as there is a demand and profitability to provide this commodity.

PROJECTIONS

The BLM Redding Resource Area, is utilizing most of its suitable rangelands and currently has 51,200 acres leased for livestock grazing producing 1,175 head of livestock. This equates to less than 1% of both the total rangeland acres and head of livestock produced outside of BLM lands within the Resource Area. These amounts are regionally insignificant and under any of the land-use management alternatives of the RMP, no significant changes would occur to these numbers or the regional livestock industry due to BLM actions. The only anticipated change in grazing management would be the exclusion of grazing within riparian zones and wetlands in specific areas where BLM consolidates public land ownership. This grazing management action is common to all land-use management alternatives.

Recreational Use Development

BACKGROUND

In order to project the reasonably foreseeable recreational use and development of the Public Lands (BLM) in the Redding Resource Area, it is necessary to recognize the role those public lands play in relation to other publicly owned lands and private lands within the planning area. The public lands which have significance to recreation use and development either contain some sort of recreational attraction (i.e. Trinity River, Sacramento River, Klamath River and Butte Creek Canyon, etc.) or are situated in places where they are the only vacant lands which are both accessible and available for people to pursue recreational activities (which are for the most part excluded from private lands). Many examples of the latter category are present around the cities of Redding, Yreka, Weaverville and Paradise. It may be said that the public lands along the Sacramento, Trinity and Klamath Rivers as well as along Butte Creek have a regional or even national recreational significance signaled by their regional and national visitation patterns, while the scattered public lands which contain little more than available and accessible open spaces have predominantly a nearby local recreational clientele and locally derived visitation patterns.

The regionally significant public lands where BLM manages the recreation resources account for about 10,000 acres of public lands within the Resource Area, or roughly 4% of BLM administered public land. Of the remaining 96%, less than half is available and accessible for open space uses (off-road vehicle use, hunting, walking, target shooting, etc.) and a smaller amount actually receives regular recreational use.

The public land must also be viewed in relation to the total land area and the other Federal and State land which is available and accessible for recreation uses within the planning Area. The following figures may help the reader in seeing this relationship:

Total land acreage within the Redding Area boundary 9,914,000

Approximate National Forest acreage in the planning area 5,500,000

Total BLM Public Land within the Area boundary 247,500

Percent of total land which is BLM pubic land 2.5%

BLM public lands at 247,500 acres represent less than 4% of the Federal land base, however the relatively minor Federal acreage represented by BLM is not a useful measure of its significance. Due to their close proximity to major transportation corridors and growing communities, many of the public land parcels attract very intensive and continuous local recreational use. Such areas allow local populations nearby open spaces for pursuit of activities which would require more costs in terms of advance planning and travel if pursued at more distant open space areas.

PROJECTIONS (Recreational Use)

The local population trends will place greater demands upon public lands close to communities, primarily for day-use opportunities of both developed facilities and undeveloped open space areas. In this regard BLM lands immediately surrounding the area's cities and towns will receive growing use pressure resulting in increased conflict between competing visitors as well as resource damage from excessive use. Both resource and social problems will increase more rapidly than the local population growth rate because the amounts of available open space will diminish through public land

disposals and from conversion of remaining public lands to other uses (schools, etc.).

Leisure time availability is expected to change as more of the workforce utilizes opportunities for alternative work schedules. This will result in increased recreational use of the public lands over the traditional work week period (Monday through Friday). Also, the large seasonally employed workforce (timber, tourism) will continue to utilize public lands for recreation during the winter months when regional visitation drops off. Another segment of the local population is the chronically unemployed and persons whose lifestyle is dependent upon public assistance in one form or another. As this population continues to grow it will place greater use pressure on the accessible and available nearby public lands.

Demographic shifts can also affect recreation use and development trends. It is expected that the hispanic population, the fastest growing part of California's population, will be in the majority within a few years, followed closely by people of asian background. Both of these growing populations tend to prefer a greater degree of social interaction as part of their recreation experiences than is characteristic of caucasians; however, their participation in recreation activities which are dependent on backcountry areas is lower. Larger numbers of visitors utilizing relatively smaller areas near population centers is likely, and resource damage resulting from concentrated use should be expected. As a result, there will be a need for developed recreational facilities in places that are presently popular as undeveloped open space.

As residential development expands outwardly from the Redding Resource Area's growing communities, many of the existing open space parcels of public land will be bordered by (or surrounded by) residential development. As the population density surrounding these public land parcels increases, many recreational activities which have traditionally occurred upon them (off-road vehicle use, shooting, hunting, etc.) will create conflicts with neighboring residents. Demand will increase for closer control and elimination, or restriction of certain uses. Successful control of such uses may require displacement through disposal of those parcels to private ownership, or transfer to a local governmental jurisdiction for parks or some other sort of development.

The limited recreation use of the public lands which are scattered along the foothills of the Sacramento Valley, Scott Valley and Shasta Valley will remain steady over the coming decade, and will decline gradually thereafter as these lands move into private ownership. Recreationists will for the most part be displaced to the nearby National Forests. Recreation use of the Forests is well below capacity and the National Forests in the area expect to have surplus capacity well into the coming century for both developed facility uses and backcountry uses.

Within the Special Recreation Management Areas (SRMA's) and other areas where BLM expects to consolidate public land ownership, there will be a shortage of available use opportunities in many places by the turn of the century. Some of these areas have prescribed visitor use levels in order to preserve a set of specified recreational use experience opportunities. Because of their limited acreage, proximity to major transportation corridors, and proximity to local population centers, maximum visitor use levels will have to be established and enforced. Further restrictions on types of uses will also be required. Regional visitation to these areas will increase at a slower rate than local visitation (3% annually for regional visitation and 10 to 15% annually for local visitors).

While visitor use has been stabilized in the Forks of Butte Creek Recreation Area through permitting for recreational mineral collecting, it is expected that by the year 2000 use level restrictions may be needed as the cities of Paradise and Chico continue to grow.

The Gene Chappie/Shasta Off-Highway Vehicle Area is expected to be fully developed by the year 1997, with all trails and staging facilities fully operational. Visitor use is anticipated to grow to around 100,000 visitor days annually and stabilize at that level by the year 2000. This use level would be well below the potential carrying capacity.

The Trinity River SRMA will continue to accommodate gradual growth in visitation with the planned developments. Limits on certain types of activities may be required and may be accomplished by limiting public access, capacity of developed facilities, imposing or increasing user fees and limiting commercial use permits. Due to this area's predominantly regional and seasonal visitation pattern as well as the limited supply of developable private land near the river, this SRMA should reach a stable use level commensurate with designed capacity by the year 2000 at 120,000 visitor days annually, compared to fluctuating use levels between 75,000 and 100,000 visitor days annually over the

1980's. Demand for this area's recreational attractions is affected strongly by changes in transportation costs (primarily the price of gasoline), water availability in other California rivers, and the condition of the anadromous fishery. This SRMA will not be seriously affected by changes in local economic or social conditions.

The Sacramento River SRMA will be the most volatile area with regard to recreational use and development over the planning horizon. The BLM efforts to increase the public land acreage and preserve this area's amenity and natural values will be pursued in direct competition with private land development interests. The remaining agricultural properties (cattle ranches, orchards, etc.) which are needed to protect the area's recreation and wildlife values are also prime real estate for large scale residential or commercial development. Several of these large properties are available for sale. Small acreage residential development is already occurring along the Sacramento River in parts of this area. Conversion of the river frontage is likely to accelerate in the coming decade, and once underway, enhanced infrastructure will further accelerate development, rapidly escalating land values. Recreational use of this area has grown from less than 12,000 visitor days in 1980 to over 25,000 visitor days in 1990. This increase was due in large part to greater public awareness of the available public lands through signing, public participation in management planning and informational media.

With rapidly growing populations in the nearby cities of Redding, Anderson and Red Bluff, demand for use of the Sacramento River (SRMA) by the local population alone for fishing, hunting, horseback riding, float boating and hiking is expected to increase throughout the planning horizon at more than 10% annually. The importance, accessibility and high visibility of the Sacramento River in California will continue to attract visitors from throughout the region at increasing rates, however such regional visitation, due to the required advance planning and travel times, will be concentrated around seasonal attractions (salmon runs, holidays, etc.). Prescribed visitor use levels are expected to be reached sometime around the year 1996 during times when there are anadromous fish runs and hunting seasons. During such times use may need to be restricted in order to preserve the designed experience opportunities. Use pressure from surrounding residential development could force use restrictions on a full time basis as soon as the year 2000, depending upon the proximity and scale of such development and the amount of additional area which can be brought into public ownership. With more public ownership the need to limit numbers of visitors could be delayed since there would be additional space to disperse users. As use opportunities on nearby private lands are further restricted or eliminated by development, demand could substantially surpass this area's prescribed visitor capacity.

Along the upper Klamath and Shasta Rivers in the northerly part of the Resource Area public land ownership is fairly widely scattered and involves small acreage. Local visitation derives from a small population base which consists primarily of older people. While this population is growing due to in-migration, its impact upon the public lands is slight and not expected to create unmet demands for areas or facilities within the planning horizon. Regional visitation is primarily associated with commercial whitewater rafting trips originating in Oregon. The highly technical quality of the upper river limits non-commercial use, and BLM permitting system is an effective mechanism for keeping numbers of guided visitors within prescribed levels. Visitation overall along the Klamath and Shasta Rivers is not expected to increase substantially within the planning horizon.

Between 1990 and 2010, the most significant recreational use and development changes involving public lands will occur in the urban interface areas around the cities of Redding, Anderson, Paradise, Weaverville and Yreka. Changes in recreational use and development will occur most rapidly around the City of Redding. The scenario for each land-use management alternative will focus on the urban interface area of the City of Redding. The reader may anticipate similar occurrences at a somewhat slower rate on the Public Lands around the other cities mentioned above.

Under the Proposed Action (Resource Use With Natural Values Consideration) as well as the other land-use management alternatives (Resource Use, Administrative Adjustment and No Action) of the Redding RMP, the City of Redding and other community organizations will be allowed two years to identify and apply for those public lands in the urban interface area which the they feel are needed for public purposes. Public Lands in excess to the needs of the City or other community organizations will then be used for exchange by BLM. Most or all of these public lands have been considered as "open space" by both the city and the county, available for unstructured public recreational use, and as such, an amenity value which involves no direct cost to the local government beyond occasional law enforcement service. Due to the Jarvis-Gann Act of 1978 (Proposition 13) and economic factors, local

government or other organizations will probably be reluctant or unable to commit to acquisition and development of the greater part of the urban interface public lands. Under existing Federal law, the local agencies and organizations will not be allowed to acquire these Public Lands to simply "keep in the bank" for unspecified future uses. As a result, as the City grows outward, the scattered parcels of public land will be surrounded by residential and/or commercial private land development. Each such public land parcel will be treated as a "commons" by the surrounding community, however there will be no way to translate that potential community benefit into satisfactory or appropriate uses and controls. It is not part of BLM's mission to manage the public lands as local or community parks, for the benefit of a limited nearby population. BLM will have to concentrate its management efforts on high resource value lands of regional and /or national significance, as directed and funded through Congress.

What happens to these parcels next depends upon the makeup of the surrounding community, including such factors as financial wealth, average age, average educational level, attitudes about the environment and quality of life, concerns about social responsibility, etc. If a public land parcel is highly valued for its natural open space by a majority of the surrounding community, it is possible that a cooperative management relationship can be developed whereby concerned citizens obligate their personal wealth, time and energy to preserving and protecting the parcel's amenity values under the general direction of BLM. If, on the other hand, the surrounding community does not value the public land parcel for its amenity and natural resource values, or is unwilling or unable to devote its energies to protecting these values, the subject parcel(s) will receive progressively more serious resource abuse and will also become a place of conflict between competing recreationists as well as public land abusers. The majority of such parcels will, therefore, be transferred to the private sector via land exchanges and be developed in accord with local governmental zoning requirements.

Under the Enhancement of Natural and Cultural Values Alternative, for example, several public land parcels west of Redding in the Clear Creek, Sugarloaf, Mule Mountain, Swasey Drive and Kett vicinities would be retained and managed for their open space amenity values. The success of this land use management alternative would depend directly upon the depth of commitment exhibited by the surrounding communities. There is historical precedent for this type of arrangement within the Redding Resource Area and other BLM field offices. This type of affirmative local stewardship is, however, a relatively rare occurrence.

IMPACT TOPIC DESCRIPTIONS and ANALYSIS METHODOLOGIES

The impact topics to be assessed include impacts to anadromous salmonid habitat, archaeological resources, deer winter range, scenic quality, slender orcutt grass, spotted owl, and wetlands/waterfowl habitat. The rationale for discounting additional impact topics from intensive analysis is discussed within Chapter 1. Impacts included within each analysis include direct, indirect and cumulative impacts. This section will introduce the impact topics to the reader, explain how they are quantified or measured, and disclose the procedures used within each analysis.

IMPACTS TO ANADROMOUS SALMONID HABITAT

What The Impact Topic Will Assess

This significant impact topic assesses the affect the various land-use management alternatives will have upon the quantity and quality of anadromous salmonid habitat (as discussed below) within key areas. Various land-use management alternatives within the RMP entertain management options along river and stream segments containing important salmonid habitat. For purposes of this analysis, it is assumed that land-use management actions that bring significant amounts of habitat under BLM administration where habitat conditions can be improved, are beneficial actions having significant positive impacts.

This analysis focuses on anadromous salmonid habitat within key areas (as discussed below). These key areas are important portions of streams or rivers below major water impoundments which presently allow effective passage and dependable spawning and rearing use by Chinook salmon, Coho salmon and steelhead trout. These key areas are located outside (or below) existing boundaries of the National Forests within the Redding Resource Area. These key areas presently contain public land administered by BLM, or are recommended for acquisition by BLM in one or more land-use management alternative. Other important anadromous salmonid habitat exists outside of these key areas; however, no recommendations are made in any land-use management alternatives of this RMP that would affect these important streams (ie. Antelope Creek, Bear

Creek, and Cow Creek on the Sacramento River, Bogus Creek and Cottonwood Creek on the Klamath River, Moffet Creek on the Scott River, and Browns Creek on the Trinity River).

How the Impacts Are Measured

Impacts are quantified as miles of stream affected through implementation of the various land-use management decisions. Currently BLM administers 43 miles of critical salmonid habitat. Although these 43 miles represent a small fraction of total anadromous fish habitat in the Resource Area, it contains some of the most important habitat in northern California. This is due to the location of BLM administered parcels in relation to the cold water releases of large reservoirs and/or important spawning and rearing habitat.

What Specific Items Are Assumed To Aid The Analysis

Habitat assessed within the analysis includes the spawning and/or rearing habitat of Chinook salmon, Coho salmon, and steelhead trout. It does not include resident trout such as rainbow and brown trout except in as much as they occupy the same habitat. Critical habitat is any portion of the overall habitat requirements which would appreciably decrease or increase the likelihood of survival or recovery of these anadromous fish species.

Prohibition of mineral location, restrictions on size and type of mineral collection equipment, and designation/management of critical salmonid habitat as Areas of Critical Environmental Concern would result in enhanced long-term protection of anadromous fish habitat.

Habitat restoration work by other public agencies (i.e. U.S. Fish and Wildlife Service, U.S. Forest Service, California Department of Fish and Game) and private organizations (i.e., Adopt a Watershed and Cal Trout) is assumed to continue under all land-use management alternatives. For the purposes of this analysis, these beneficial commitments having positive impacts are assumed to be the same in all land-use management alternatives. Any impacts to anadromous salmonid habitat, from the implementation of any BLM land-use management alternative, is in addition to the foreseeable actions of other agencies and organizations.

The total mileage of stream and river habitat to be assessed within key areas is 159.5 miles. Key areas to be assessed are listed alphabetically by river and, as appropriate, tributary stream to the river. The approximate length of these key areas (in miles) follow the descriptions:

1. Klamath River- between the convergence of Interstate 5 and Klamath River, and the National Forest boundary (6 miles).

    Dry Creek Tributary-lowest reach (0.5 mile).

2. Sacramento River- between Balls Ferry and the gaging station below Sevenmile Creek (25 miles).

    Battle Creek Tributary-below Ponderosa Way Bridge (40 miles).

    Clear Creek Tributary-below the boundary of the Whiskeytown Unit of the National Recreation Area (13.5 miles).

    Cottonwood Creek Tributary-portion below the Interstate 5 bridge within BLM administration (0.5 miles).

    Deer Creek Tributary-between the Lassen National Forest Boundary and the Deer Creek Irrigation Ditch (8 miles).

    Mill Creek Tributary-below the Lassen National Forest Boundary within BLM administration (0.5 miles).

3. Shasta River- below the Interstate 5 crossing (8 miles).

4. Trinity River- the portion of river between Lewiston Dam and the Trinity National Forest with unimproved land on one or both banks (34.5 miles).

    Canyon Creek Tributary- below the National Forest Boundary (4 miles).

    Deadwood Creek Tributary- lowest reach (3 miles).

    Grass Valley Creek Tributary- lowest reach, below Buckhorn dam (6 miles).

    Indian Creek Tributary- lowest reach (3 miles).

    North Fork Trinity River- below the national Forest Boundary (1 mile).

    Reading Creek Tributary- lowest reach (3 miles).

    Rush Creek Tributary- lowest reach (3 miles).

IMPACTS TO ARCHAEOLOGICAL RESOURCES

What The Impact Topic Will Assess

This significant impact topic will assess the affect various land-use management alternatives will have upon archaeological resources. Archaeological resources evaluated in the impact assessment include a vast array of prehistoric and historic sites. Such sites are found most often in clusters where these peoples were largely dependent on resource availability and concentrations. There are isolated sites of significance as well. Most sites occur as point locations, that is aggregations of cultural remains several acres or less in size. A few are larger or include linear features such as historic roads. Archaeological sites that occur clustered most often represent temporally and culturally related locations and, as such, are considered both individually in terms of research and interpretive values, and also as a whole.

Negative impacts to archaeological resources arise through both natural and human causes. The human aspect is most pertinent in this analysis since surface disturbing activities (development, off-road vehicle use, illegal excavations, placement of fire lines, etc.) are detrimental to the integrity of archaeological sites. Indirectly, impacts can be created or accelerated through increased access and resulting illegal relic collecting and looting or vandalism. Impacts (limitations) to archaeological and historical research can result from special designations such as Wilderness, ACEC, and conservation for future use, or due to designation as a sacred Native American area. Changes in the watershed through forestry practices and brush reduction can lead to erosion of sites. Also, transfer of archaeological sites through public land disposal can likewise lead to site damage or destruction where restrictions on development and protective covering laws are less stringent. In a few cases, transfer could lead to more intense and favorable management as where local or state control would be applied such as around Shasta State Historic Park.

Acquisition can bring significant archaeological sites into Federal hands where laws and regulations are more protection oriented; research, conservation and interpretive opportunities may be expanded; and closer scrutiny of the sites can be undertaken by law enforcement personnel. The negative side to this would be impacts from greater mineral exploration and development, increased recreation uses and attendant illegal activities such as off-road vehicle play, artifact collecting, and vandalism to historic structures. Decreases in some potential negative impacts may result from limitations on grazing, improved forestry practices, channeled recreation, and erosion control measures.

What is most difficult is an accurate assessment of the level of positive and negative impacts each action and land-use management alternative would have. Most areas are less than 20% inventoried. Furthermore, not all sites have an accurate measurement regarding their significance, whether it be National Register of Historic Places status or something less. In those areas where there is higher inventory and some research evaluations, it is possible to make subjective judgements on where sites are and are not, and how important those sites or areas might be to the public. Because most areas have not been systematically surveyed, accurate impact predictions are not possible. In these areas, informed guesses are used to evaluate impacts. This is true as well on adjoining or nearby private and state and Federal lands. Within the Resource Area there are nearly 10% of all officially recorded sites, approximately 400. It is estimated that there may be 3000-5000 archaeological sites unevenly distributed on BLM lands and at least twenty times this many on private, State and other Federal lands within the Redding Resource Area.

How The Impacts Are Measured

Impacts are quantified in terms of the number of sites and, in a few cases, linear miles, affected by the various land-use management alternatives. These impacts are shown in narrative form within the Environmental Consequences section, and within Table 4-1. Acreages involved are minimal, at the most for all archaeological resources less than 5,000 acres within the Resource Area. However, some significant archaeological resource zones may include large blocks of hundreds of acres. Still, since BLM has only defined a few of these zones (e.g. Swasey Drive, Inks Creek/Paynes Creek, Lake Oroville, Forks of Butte, Deadwood/French Gulch, Quartz Hill), for purposes of this analysis, impacts are measured by the number of sites disturbed or destroyed or, in the cases of exchanges, potentially transferred to private parties.

What Specific Items Are Assumed To Aid In The Analysis

The analysis assumes that, under the Proposed Action alternative and the Administrative Adjustment alternative, Quartz Hill will remain under public stewardship.

Furthermore, the analysis assumes that BLM will be successful in securing a cooperative management agreement with a qualified conservation organization in order to manage Quartz Hill as identified within the Enhancement of Natural and Cultural Values alternative. Similarly, the analysis assumes that, under the Proposed Action alternative and the Resource Use With Natural Values alternative, Clear Creek will successfully be obtained by a qualified organization under the Recreation and Public Purposes Act.

Any one of the proposed land-use management alternatives is expected to cumulatively impact (positively and negatively) less than 15% of BLM sites in the Resource Area. The remaining sites will remain virtually unaffected. Since these resources are non-renewable and so little is known about them, losses will be kept to a minimum during plan implementation through project specific inventory, various consultation processes, site testing and evaluations, avoidance, installation of protective devices and signing, education, ACEC designation, and other mitigating actions, both administrative and on-the-ground. All official actions will follow Federal guidance, especially the archaeological resource laws, lessening the negative impacts.

IMPACTS TO THE DEER WINTER RANGE

What the Impact Topic Will Assess

This significant impact topic assesses how the various land-use management alternatives of the Redding RMP may affect deer winter ranges (as defined below). Certain land use alternatives could degrade or enhance the amount of deer winter range directly through management actions (ie. timber harvest) or through authorization of private development with land tenure decisions.

How The Impacts Are Measured

Acres of habitat lost or gained within the three deer winter ranges (described below) will be the primary measure used to identify the impact. Percent changes in deer population levels will be identified where feasible. All percent changes are an estimate based on the number of BLM administered acres acquired or lost. Changes affecting more than 10 percent of the habitat would be considered a significant impact for discussions in this document.

Three deer winter ranges will be discussed in this evaluation. Two deer winter ranges are located in the Trinity Management Area and one deer winter range is in the Shasta Management Area. In the Trinity Management Area, the two ranges are the Hayfork deer winter range and the Weaverville deer winter range. The Hayfork range consists of 26,484 acres, broken down as follows: BLM 2,800, private 4,800 in developed areas (developed areas are those that are zoned at 40 acres or less and have some type of structure on them), 10,064 acres of private undeveloped, and 8,820 acres under administration of the U.S. Forest Service. The Weaverville range contains 82,563 acres, broken down as follows: BLM 27,428, U.S. Forest Service 8,580, private in developed areas 8,080, and private undeveloped 38,484. There is one deer herd using the Shasta Management Area, the Whiskey Town Deer Herd. The deer winter range for this herd consists of approximately 52,500 acres, of which 17,700 are administered by BLM.

What Specific Items Are Assumed To Aid The Analysis

Several management areas have 10 percent or less of the existing deer winter range in BLM administration. In these areas, BLM actions should not result in adverse or beneficial impacts. These Management Areas are Klamath, Scott Valley, Ishi, Sacramento River, and Yolla Bolly. Only those deer winter ranges in the Trinity River Management Area and the Shasta Management Area will be discussed.

Deer winter range should remain stable throughout the Resource Area. However, if current population growth in the northern part of the state continues as predicted, development will adversely impact deer winter range habitat. Critical areas and other areas identified by California Department of Fish and Game will continue to receive treatment to improve availability and quantity of forage. Forage allocations and impacts to deer and deer ranges have been previously identified in the Redding Grazing Environmental Impact Statement completed in 1982 and the Final Timber Management Plan and Environmental Assessment for Sustained Yield Unit 15 completed in 1980.

For purposes of this analysis, deer winter range is defined as the area of land lying below 3500 feet elevation that deer use during the winter months (November 15 to April 15). Characteristic vegetation of these areas include: oaks (Quercus sp.), manzanita (Arctostaphylos sp.), ponderosa pine (Pinus ponderosa), digger pine (Pinus sabiniana), ceanothus (Ceanothus sp.), Mountain mahogany (Cercocarpus betuloides), and Chamise (Adenostoma fasciculatum).

IMPACTS TO SCENIC QUALITY

What the Impact Topic Will Assess

This impact analysis will assess the impacts upon scenic quality for each of the land-use management alternatives of the Redding RMP.

In many cases the effects of possible land-use allocations cannot be predetermined because there is far too much variability in the possible land treatments which could result from the selection of a particular land-use management alternative. It therefore becomes necessary to describe potential effects in terms of the most likely worst-case scenario when discussing impacts to scenic quality. That is to say, given particular land-use allocations, to what degree would changes in land-use alter the characteristic landscape, and would such alterations result in improved or degraded scenic quality?

Impacts to scenic quality are assessed in terms of generally accepted guidelines which are based upon popular acclaim to a very large degree. Within the Redding Resource Area most of the public land has been inventoried and has a scenic quality rating assigned - either "A" for high scenic quality (and high viewer sensitivity), "B" for either high scenic quality but lower viewer sensitivity, or, somewhat lower scenic quality but high viewer sensitivity, and "C" for areas where neither high scenic quality or viewer sensitivity are important considerations. For example, both scenic quality and viewer sensitivity rate highly along the Trinity River, which therefore is classified as having "A" scenic quality. On the other hand, the public lands immediately to the north and west of the City of Redding are of lower scenic quality and also are not considered significant landscapes to the area's population. These lands are classified therefore as having a "C" scenic quality rating. The public lands within the viewshed of Whiskeytown Lake are quite similar in terms of landscape character to the lands in the near western viewshed of Redding, however because viewer sensitivity is so high at the Whiskeytown National Recreation Area, Those public lands are classified as having a "B" or "A" scenic quality rating.

Actions on a public land parcel which could substantially modify a highly scenic landscape which is not considered an important visual resource (low viewer sensitivity or seldom seen) could occur without actually impacting the overall public land scenic quality. For example, a major timber sale involving large clearcuts and extensive road construction which occurs in an area which is not highly valued for its scenic resources (a "C" scenic quality area), would not negatively impact scenic quality. If the same type of timber sale were to occur adjacent to the Trinity River, scenic quality could be significantly negatively impacted because scenic quality and viewer sensitivity are high for this area.

Impacts to scenic quality are determined as much, therefore, by where an action occurs relative to viewsheds and viewer sensitivity to those viewsheds, as by what the particular action might involve in terms of landscape modification.

How the Impacts Are Measured

Scenic quality is measured by applying seven evaluation factors to a landscape, generally from one or more positions or perspectives which are called "key observation points". These are positions from which the subject landscape is most likely to be viewed. Using the Scenic Quality Inventory and Evaluation system, a relative value can be assigned to each of the seven evaluation factors (landform, vegetation, water, color, influence of adjacent scenery, scarcity and cultural modifications). Each evaluation factor receives a score, and the sum of these scores will identify the landscape as having an "A", "B", or "C" scenic quality rating.

The landscape is then evaluated in terms of viewer sensitivity, measured by such things as type of users, amount of use, public interest,adjacent land-uses and whether the landscape is part of a special area (National Conservation Area, National Park, Wild & Scenic River, etc.). Viewer sensitivity is scored as "high", "medium" or "low".

Impacts to scenic quality are measured using the Visual Contrast Rating system. This system measures impacts in terms of contrast with the basic elements (form, line, color, and texture) of the existing landscape. An action which create a strong, moderate, weak, or no contrast with elements of the existing landscape. The sum total of contrasts is scored and then compared to the scenic quality rating score. High degrees of contrast in terms of line, form, color and texture result in major impacts to scenic quality on landscapes which have high scenic quality ratings. On the other hand, actions which cause high levels of contrast to form, line, color and/or texture to landscapes which have low scenic quality ratings do not usually result in significant scenic quality impacts.

What Specific Items Are Assumed To Aid The Analysis

In assessing impacts to scenic quality, there are unknowns which will affect the validity of an analysis over the long term. While the physical elements of a landscape may remain relatively unchanged, viewer sensitivity is probably the most likely factor to change over time, and is the hardest factor affecting scenic quality to predict.

For example, a relatively uninteresting hillside which had been rated as possessing a "C" scenic quality rating could quickly become a significant viewshed through any number of on or off-site actions. An expensive subdivision might be built overlooking the subject hillside. This subdivision's property values might be attributed in substantial part to the views of this hillside. Another possibility might be the development of a highway overlooking the hillside, or possibly this hillside could be included within some specially designated area which would cause the hillside's scenic values to gain in importance. Under such possibilities, the hillside would probably have to be reclassified as possessing "B" or possibly "A" scenic quality, based upon increased viewer sensitivity.

For the purposes of impact analysis, some limitations on long term validity must be accepted because scenic quality is so dependent upon human perceptions and values, which are likely to change over time, in less than predictable ways.

To aid analysis, it will be assumed that only public lands which have been inventoried as possessing "A" scenic quality are sufficiently important with regard to scenic quality to require impact analysis. It will be assumed that scenic quality "B" and "C" areas will not be significantly affected by land-use allocations under any land-use management alternative to require analysis. It will also be assumed that land-use allocations which do not contain inherent modifications to landscape character will not affect scenic quality.

Scenic quality was determined to be an outstandingly remarkable value within twelve stream corridors determined eligible for inclusion in the National Wild and Scenic Rivers System, ie. Battle Creek, Beegum Creek, Butte Creek, Clear Creek, Deer Creek, Middle Fork Cottonwood Creek, Mill Creek, Paynes Creek, Sacramento River, Shasta River and South Fork Cottonwood Creek. It is assumed that this scenic quality of public lands within these corridors would be protected under all land-use management alternatives until conclusive suitability studies have completed and/or the U.S. Congress determine that the corridors shall be included in the National Wild and Scenic Rivers System. Since scenic quality in these corridors could be protected only temporarily, assessment of positive or negative impacts would be premature and will not be addressed in this analysis.

BLM Visual Resource Management System

Scenic quality is managed by BLM to create, maintain, or allow certain landscape conditions under the Visual Resource Management System (VRM). Under this system, wherever scenic quality has been identified (through land-use plans) as a resource which should be managed, one of four VRM classes has been prescribed. These prescriptions constitute land-use allocations which establish parameters upon what may and may not occur on the affected public lands.

Visual Resource Management Class Objectives

Class I. - Preserve the existing character of the landscape. Provide for natural ecological changes. (This does not, however, preclude very limited management activity.) The level of change to the characteristic landscape should be very low and must not attract attention.

Class II. - Retain the existing landscape character. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Class III. - Partially retain the character of the existing landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Class IV. - Provide for management activities which require modifications to the existing landscape character. The level of change to the characteristic landscape can be high. Management activities may dominate the view and can be the focus of viewer attention.

In areas where no VRM class has been prescribed, scenic quality is not considered a significant resource and is generally not considered in BLM's management decisions.

IMPACTS TO SLENDER ORCUTT GRASS

What The Impact Topic Will Assess

This significant impact topic will assess the impacts to slender orcutt grass (Orcuttia tenuis) and its' habitat through implementation of the various land-use management alternatives. Populations of slender orcutt grass, a native annual grass species found growing only in the north, central portion of California, have been drastically reduced as the direct result of its' habitats destruction and disturbance. Growing only in vernal pools (as defined below), it requires critical periods of inundation and dryness to complete its life cycle. Vernal pools are among the most threatened of all the state's ecosystems. Ecologists estimate that agricultural and urban development have destroyed more than 90% of this habitat. Only 36 sites have been recorded in this zone, of which 5 have been destroyed and 5 have been damaged within the last 11 years. Currently only 14 sites are being managed to preserve this species within its total range.

Seventy-eight percent of all the known sites (163 acres of existing suitable habitat) are within the boundaries of the Redding Resource Area. The major actions that would affect this species include land acquisitions, and proposed BLM land disposals containing this species or its' suitable habitat.

The acquisition and retention of lands containing populations would be a positive impact, assuring the existence and viability of orcutt populations through protective policies, laws and actions. Disposals of similar lands, a possibility under one of the land-use management alternatives, would likely create minimal impacts because of the protective covenants that would have to be attached to these habitats before disposal could occur.

How Impacts Are Measured

Impacts to slender orcutt grass will be quantified using the number of affected sites (populations) as one unit of measurement, and acres of suitable habitat affected as another. Suitable habitat consists of vernal pools which are known to support this species, yet not all vernal pools have the necessary inundation to dry period ratios to support slender orcutt grass. By itself, impacts quantified in terms of suitable acres would not portray an accurate assessment as to the viability of the affected populations without factoring in number of sites. Because each site is diverse, the greater the number of sites, the greater the likelihood that the total orcutt population will be sustainable.

Since Orcuttia tenuis is a State listed endangered species and may become listed as a Federal endangered or threatened species, any detrimental impact would be considered as unacceptable and be a significant negative impact. Having no substantial data on what constitutes a viable population, for the sake of this assessment, any increase in the number of sites and amount of suitable habitat under public protection that is 10% or greater, would be considered a significant positive impact.

What Specific Items Are Assumed To Aid The Analysis

The following assumptions were used to aid analysis: BLM permitted activities will have no negative effects due to existing protective policies and laws; the statistical data used from the California Natural Diversity Data Base (12/10/89 revision) is current and; populations on private lands, excepting those managed by The Nature Conservancy, have the potential to be damaged or destroyed.

Furthermore, this analysis is not pertinent over the entire Redding Resource Area because four of the management areas contain no slender orcutt grass on public or private lands (Scott Valley, Klamath, Yolla Bolly and Trinity). Two additional management areas have populations only on private lands which would not be affected by any land-use management alternative (Shasta and Ishi). Therefore, only the alternatives pertaining to the Sacramento Management Area will be analyzed.

The definition of a vernal pool used within the analysis is: a shallow depression underlain by an impermeable layer consisting usually of claypan or hardpan, on which winter rainfall accumulates, forming a pool of standing water that remains for several weeks or months into the spring when it evaporates. These ephemeral pools support a specially adapted flora found neither in true marshes nor in dryland habitats, which include some of the state's rarest and most unusual plants.

IMPACTS TO SPOTTED OWL

What The Impact Topic Will Assess

This significant impact topic will assess the affect various land-use management alternatives will have upon known northern spotted owls (Strix occidentalis caurina) located on BLM administered lands and certain key areas containing habitat suitable to the northern spotted owl. BLM key areas are currently occupied by spotted owls, are adjacent to areas that do, or provide linkages to areas that could support substantial spotted owl populations. Certain land-use management alternatives could degrade or enhance the amount of habitat located within these key areas directly through management actions (ie. timber harvest), or indirectly through land tenure practices (loss or gain of public lands).

Potentially, proposals that transfer BLM land from federal ownership can be most detrimental to future owl conservation. This is especially true prior to completing inventories and a comprehensive plan to determine how owl habitat should be managed in relation to adjacent habitat within private ownership. Once habitat is transferred to the private sector, comprehensive Federal management options are diminished.

In contrast, land transfers to the U.S. Forest Service for the express purpose of managing and protecting owl habitat in accord with currently managed habitat within their jurisdiction is a beneficial action. Similarly, where large blocks of owl habitat can be acquired and managed by BLM, habitat tracking is eased and comprehensive Federal plans can be prepared.

How The Impacts Are Measured

Direct and indirect impacts are quantified in terms of the number of spotted owls, and the amount of spotted owl habitat (as defined below) affected within key areas (as described below). Any action that could cause the forested landscape within these key areas to lose its' habitat characteristics would be considered a significant adverse action having negative impacts. Similarly, any action that could cause the forested landscape to sustain and/or improve its' habitat characteristics would be considered a significant beneficial action having positive impacts.

Cumulative impacts are quantified in terms of the number of spotted owls, and the amount of Resource Area wide, spotted owl habitat affected due to BLM actions, BLM land tenure policies, as well as other Federal, state and private actions or policies.

Because all discretionary activities authorized under an approved RMP that may adversely impact the spotted owl or its' Critical Habitat must undergo consultation with the U.S. Fish and Wildlife Service (USFWS) as required under Section 7 of the Endangered Species Act, impacts identified within the analysis represent the worst case situation.

What Specific Items Are Assumed To Aid The Analysis

Information from the report, Recovery Plan for the Northern Spotted Owl - Draft, is used to estimate direct, indirect and cumulative impacts. Approximately 173 owl pairs and 255,000 acres of owl habitat are present within the 36 Designated Conservation Areas located within the boundary of the Redding Resource Area. It is assumed for analysis purposes that the U.S. Forest Service will manage the Designated Conservation Areas in accord with the recommendations made within the Draft Recovery Plan as directed by the Final Environmental Impact Statement for the Management of the Northern Spotted Owl in the National Forests. It is estimated that an additional 395 to 495 thousand acres of habitat is present within the Redding Resource Area on BLM, U.S. Forest Service, National Park Service, state and private lands outside the mentioned Designated Conservation Areas.

The U.S. Fish and Wildlife Service (USFWS) published within the Federal Register (Volume 57, number 10) on January 15, 1992 the final rule making that designated Critical Habitat. BLM parcels designated as Critical Habitat and as identified within the Affected Environment Chapter will be managed for stated Resource Condition Objectives identified within each alternative. BLM assumes that through consultation with the USFWS under Section 7(a)(2) of the Endangered Species Act, long-term negative impacts to designated Critical Habitat would be minimal.

Management of BLM lands outside designated Owl Habitat Areas (See Management Guidance Common to All Alternatives - Spotted Owl) or Critical Habitat that contain spotted owl pairs are assumed to receive special consideration that would alleviate significant impacts. When contemplating actions within these areas, BLM would consult with the USFWS and insure consistency with the Draft Recovery Plan for the spotted owl and with the pending Habitat Conservation Plan covering private lands. Consideration of these plans would reduce significant impacts to spotted owl pairs located outside

BLM Owl Habitat Areas, USFS Designated Conservation Areas and designated Critcal Habitat.

For purposes of the analysis, all habitat identified within the below mentioned Key Areas is assumed to be usable and significant. This may not be true in reality because several factors such as habitat continuity, species composition, spatial relationship and fragmentation are not included in the analysis. As such, the analysis represents the worst case situation.

Habitat addressed within this analysis has been calculated through aerial photograph interpretation. Although some "ground truthing" has been performed, less than 10 percent of the habitat identified has been surveyed on the ground. As such, habitat acreage identified is subject to the accuracy of the photo interpretation. Habitat assessed is invariant of forest type (ie. species composition) and has been divided into three classes for the analysis, having the following characteristics:

SUPERIOR SPOTTED OWL HABITAT

1. Multi-layered, multi-species canopy.
2. Overstory conifers: 160 feet in height.

   Understory : 40 to 60 feet in height.
3. Canopy cover (closure) greater than 60 percent.
4. Diameter at breast height (DBH) 36 inches or more, more than 9 trees per acre.
5. Standing dead trees (Snags), more than 5 trees per acre greater than 15 inches DBH and 17 feet in height.
6. Down logs, more than 1/2 per acre greater than 17 inches in diameter and 13 feet in length.
7. Down woody debris, more than 5 tons per acre.

SUITABLE SPOTTED OWL HABITAT

1. Single storied or multi-layered, multi-species canopy.
2. Overstory conifers: 130 feet in height.

   Understory : 40 to 130 feet in height.
3. Canopy cover between 40 to 60 percent.
4. DBH 36 inches, more than 6 trees per acre.
5. Snags, more than 5 trees per acre greater than 15 inches DBH and 13 feet in height.
6. Down logs, more than 1/2 per acre greater than 15 inches diameter and 13 feet in length.
7. Down woody debris, more than 2 tons per acre.

MARGINAL SPOTTED OWL HABITAT

Although marginal habitat may or may not be used by spotted owls for nesting, its' value may be of more significance in regards to the foraging and roosting needs of the bird. As such, the snag component may be lacking.

1. Single story canopy.
2. Overstory conifers: lacking

   Main canopy : 40 to 130 feet in height.
3. Canopy cover 40 percent.
4. DBH 18 to 35 inches, with a majority in the 18 to 24 inch size class.
5. Snags, more than 5 stems per acre greater than 15 inches DBH and 13 feet in height.
6. Down logs, 1/2 stem per acre at 15 inches in diameter at 13 feet in length.
7. Down woody debris, greater than 4 tons per acre.

KEY AREA DESCRIPTION

The following seven Key Areas will serve as a focal point in assessing impacts to spotted owls. Two of these Key Areas (Crater Creek and Eastman Gulch) have been identified, in part or in whole, as Owl Habitat Areas to be managed as described within Chapter 3 (Management Guidance Common to All Alternatives - Spotted Owl). Furthermore, four of these Key Areas (Eastman Gulch, Rich Gulch, Tunnel Ridge, and Willow Creek) have been designated, in part or in whole, as Critical Habitat to be managed in compliance with Section 7(a)(2) of the Endangered Species Act. The Key Areas and a brief description of the quantity of habitat follow:

1. Crater Creek: (T.42N., R.7W., Section 35)

Located within the Scott Valley Management Area, this key area totaling 210 acres currently contains approximately 170 acres of suitable spotted owl habitat. The BLM has designated this as an Owl Habitat Area (OHA) to be managed in accord with the U.S. Forest Service's Conservation Area, that contains one pair of spotted owls and encompasses it.

2. EastmanGulch: (T.33N.,R.8W.,Sections 2,3,10,11,14,15)

Located within the Trinity Management Area, this key area currently contains approximately 25 acres of superior habitat, 768 acres of suitable habitat, 22 acres of marginal habitat, and one known spotted owl pair. The BLM has designated 1,100 acres within this area, containing 549 acres of suitable habitat, as an OHA to be managed in accord with the U.S. Forest Service Conservation Area. The USFWS has designated the OHA portion of this key area as Critical Habitat within their January 15, 1992 rule making.

3. Quartz Hill: (T.43N., R.10W., Sections 1,11,12,13; T.43N., R.9W., Sections 7, 12)

Located within the Scott Valley Management Area, this key area currently contains approximately 170 acres of suitable habitat, 15 acres of marginal habitat and a single spotted owl located during surveys conducted in 1988. A pair of spotted owls was reported in the area in the early 1980's. This area is considered important because it could provide continuity to important habitat located on U.S. Forest Service lands located to the north, south and east.

4. Rich Gulch (T.34N., R.11W., Sections 3, 4, 9, 10, 14,15, 21, 22, 23, 26, 27, 28)

Located within the Trinity Management Area, this key area currently contains approximately 1,199 acres of suitable habitat, 593 acres of marginal habitat and a single male spotted owl located during surveys conducted in 1989 and 1990. This area is bordered to the east, west and north by the Trinity Alps Wilderness. A substantial amount of habitat is located to the west within a U.S. Forest Service Conservation Area. The USFWS has designated this entire key area as Critical Habitat within their January 15, 1992 rule making.

5. Scott Valley Block: (Public land within T.41N., R.8W.; T.42N.,R.8W.; T.42N., R .7W.; T.41N., R.7W.)

Located within the Scott Valley Management Area, these 41 non contiguous parcels totaling 15,415 acres contain approximately 24 acres of superior habitat, 1,793 acres of suitable habitat, 19 acres of marginal habitat and two spotted owl pairs located during surveys conducted in 1991. One of the two pairs produced and fledged one young in 1991. This area does not contain large blocks of contiguous habitat. BLM parcels within this area are considered important because they could provide continuity to substantial amounts of habitat located to east, west and south.

6. Tunnel Ridge: (T.34N., R.10W., Sections 8, 17, 18, 19, 20, 29, 30, 31, 32)

Located within the Trinity Management Area, this area (included within the Trinity Alps Wilderness) contains approximately 251 acres of superior habitat, 573 acres of suitable habitat, 314 acres of marginal habitat, and one known spotted owl. Portions of this key area have been designated as Critical Habitat by the USFWS in their January 15, 1992 rule making.

7. Willow Creek: (T.46N., R.4W., Section 36)

Located within the Klamath Management Area, this area currently contains approximately 150 acres of suitable habitat. This area is encompassed by a U.S. Forest Service Conservation Area that is known to support 6 pair of spotted owls. This entire key area has been designated as Critical Habitat by the USFWS in their January 15, 1992 rule making.

IMPACTS TO WATERFOWL/WETLAND HABITAT

What the Impact Topic Will Assess

This significant impact topic assesses how the various land-use management alternatives of the RMP may affect waterfowl habitat ("wetlands"-as defined below) and the Central Valley waterfowl populations dependent upon the habitat. Activities that affect waterfowl nesting success include unregulated grazing and off-road vehicle use within the uplands adjacent to wetlands. These activities often damage or destroy the amount of nesting cover and can cause an increase in predation. Certain land acquisitions and management actions within the Klamath and Sacramento River Management Areas could allow BLM to improve wintering habitat conditions and influence waterfowl nesting success.

Approximately 90% of the wintering wetlands in the Central Valley of California have been converted to other uses. Although the parcels identified for acquisition in the Sacramento River Management Area are not considered a part of the Central Valley, the Sacramento River is used heavily by wintering waterfowl and by spring migrating waterfowl. Because waterfowl are migratory, any actions taken outside the Central Valley could affect waterfowl populations in the Central Valley.

Acquisition of any additional wintering areas, regardless of size, could result in a significant beneficial impact to wintering waterfowl.

How the Impacts Are Measured

Impacts to waterfowl are measured using three indicators: 1) estimated number of habitat acres affected; 2) estimated percent increase of wintering waterfowl in the Sacramento River Management Area and; 3) estimated percent increase of nesting success in the Shasta Valley Wetlands within the Klamath Management Area. Any action that could cause an improvement in wetland habitat conditions would be considered a significant beneficial action having positive impacts. Similarly, any action that could cause degradation of wetland habitat would be considered a significant detrimental action having negative impacts.

What Specific Items Are Assumed To Aid The Analysis

The Klamath Management Area and Sacramento River Management Area have private lands that contain significant wetlands or have the potential for development of new wetlands. These include the Shasta Valley Wetlands and Grass Lake within the Klamath Management Area, in which several thousand acres have been identified for acquisition under three land-use management alternatives. These wetlands and uplands are one of the most important duck producing areas in California. In the Sacramento River Management Area, several parcels have been identified for acquisition that have potential for wetland development; a few of these parcels contain existing wetlands. Wetlands in the Sacramento River Management Area are used primarily by wintering waterfowl,(ducks, geese, swans, and many species of shore birds including greater sandhill cranes).

Current management practices on private lands within the Klamath Management Area include agriculture, livestock grazing and beef production through feed lots. These management practices are generally considered to be detrimental to the health of wetlands and the surrounding uplands, because they reduce the suitability of these areas as waterfowl nesting habitat. Studies have shown that duck nesting success in grazed uplands is significantly lower than in un-grazed uplands (Kirsch,Duebbert,& Kruse,1978). Should BLM be successful in obtaining the Shasta Valley Wetlands and Grass Lake, beneficial impacts could occur to nesting waterfowl. If additional lands are acquired within the Sacramento River Management Area, a potential exists for the construction of new wetlands. Current management practices on adjoining BLM parcels, are improving winter and spring forage for all types of waterfowl.

For the purpose of this analysis, wetland habitat is defined as permanently wet or intermittently flooded areas where the water table is at, near, or above the soil surface for extended intervals, where hydric wet soil conditions are normally exhibited, and where water depths are less than 2 meters. Vegetation is generally comprised of water loving forms (cattails, bulrushes, etc.). Waterfowl addressed within the analysis include ducks, geese, swans, sandhill cranes and other birds generally classified as shore birds.

ENVIRONMENTAL CONSEQUENCES (IMPACTS)

This section will describe the predicted impacts expected to occur through implementation of the various land-use management alternatives. Predicted impacts identified here would be created directly through various BLM management actions; indirectly through BLM land tenure policies, and cumulatively through foreseeable development resulting from BLM actions, BLM land tenure policies, as well as other Federal, state and private actions or policies. Impacts are discussed in narrative form by each land-use management alternative. A comparative summary of the environmental consequences is presented within Chapter 3, Table 3-2.

NO ACTION ALTERNATIVE

Impacts to Anadromous Salmonid Habitat

Under this land-use management alternative, important acquisitions of key habitat areas would occur on the Trinity River, Sacramento River, Deer Creek, and Shasta Rivers. Small acquisitions on the Klamath River and some spot protective land-use allocations on some streams also contribute to a long-term maintenance of habitat in many streams. The majority of key areas, however, have no acquisition proposals or recommended land-use allocations designed to protect the habitat. The trend for these key habitat areas is downward. BLM presently administers 44 miles of key habitat areas. BLM proposes to acquire 32 miles of additional key habitat and would consider disposal via exchange of 4 miles. Overall, 72 miles (or less than one-half of the total of all key habitat areas) would be managed by BLM at the end of the planning horizon of this RMP.

BLM approved actions when viewed cumulatively with other non-BLM actions would have negligible adverse or beneficial consequences within the major river systems incorporating these key areas. In the Klamath River, BLM administered habitat represents less than 1% of the best habitat below Iron Gate Dam. Recovery of fish populations will depend on water quality and quantity management well beyond the control of BLM. Within the Sacramento River below Keswick and Whiskeytown reservoirs, BLM administered habitat would represent perhaps 1% to 2% of the total key habitat of the river and major tributaries still available to anadromous fisheries. BLM also has limited authority within the Sacramento River since it is classified as a navigable waterway. Therefore, BLM actions would have no overall consequence to the quality and condition of the dependent anadromous fisheries. The quality of the anadromous fisheries in the Shasta River could improve since the majority of important Chinook spawning habitat would be protected. Upstream water quality, however, would continue to limit improvement in the fisheries. Therefore, BLM actions could have little beneficial consequences unless water quality is stabilized and improved by others. The quality of the anadromous fisheries in the Trinity River is improving. The BLM administered key habitat, however, is strategic to fish access to adjoining habitat. BLM permitted actions, especially mineral development, could reasonably constrain the continued recovery of the habitat within the upper reaches of this river system.

The consequences for each specific key area (listed alphabetically) under this land-use management alternative includes:

Battle Creek:

The existing 5 miles of public ownership would remain in BLM administration. Motorized vehicles are limited to designated roads. Leasable mineral development is permissible with no surface occupancy. BLM actions would be inconsequential.

Canyon Creek:

The existing 3 miles of public ownership would remain in BLM administration and be managed as a "Recreational" component of the National Wild and Scenic Rivers System in concert with a U.S. Forest Service proposal. Conditions would remain stable for this stream.

Clear Creek:

The 1/2 mile of public ownership below Placer Street would be available for exchange. The 1/2 mile of public ownership in the upper canyon would be retained. Protection of the scenic quality and designated roads for motorized vehicles would maintain the condition of the public owned segment. The overall trend would remain downward on this stream.

Cottonwood Creek:

The 1/2 mile of public ownership would remain in BLM administration. Leasable mineral development is permissible with no surface occupancy. BLM actions would be inconsequential.

Deadwood Creek:

The one mile of existing public ownership would be available for exchange. BLM actions would be inconsequential.

Deer Creek:

Eight miles of this stream would be purchased and not be open to motorized vehicle use. This action would ensure the long-term protection of this entire segment of this regionally important stream.

Dry Creek:

BLM would continue to administer the 1/2 mile of existing public ownership. Condition of this key area is good and would remain stable.

Indian Creek:

The one-half mile of existing public ownership would be available for exchange. BLM actions would be inconsequential.

Klamath River:

Two minor mineral withdrawals would be continued and 1 1/2 miles of river would be acquired bringing total public ownership to two miles. These actions would have a minor stabilizing consequence.

Mill Creek:

The 1/2 mile of public ownership would be available for exchange. Given the projected land-use along Mill Creek, disposal would have no impact on this important key area.

North Fork Trinity River:

The one mile of public ownership would remain in BLM administration. The condition of this habitat would remain stable although permitted mining activity could degrade this segment of stream.

Reading Creek:

The 1/2 mile of public ownership would be available for exchange. BLM actions would be inconsequential.

Rush Creek:

The 1/4 mile of public ownership would be available for exchange. BLM actions would be inconsequential.

Sacramento River:

Twelve additional miles of this key area would be acquired. The combined 19 miles of this river would be available for leasable mineral development with no surface occupancy and motorized vehicle use would be restricted. Condition of the habitat would remain stable with a chance for some improvement, especially with rearing channels.

Shasta River:

Up to 3 1/2 miles would be acquired. The total of seven miles would have protective rights-of-way placed on major habitat improvement facilities. The condition of habitat would continue to improve.

Trinity River:

Seven miles of this river would be acquired. The total of 28 miles would be maintained. Minor withdrawals would continue at Douglas City and Junction City campgrounds and protective rights-of-ways would be used at improved public facilities. Habitat improvement projects would continue. Mineral entry, however, would be allowed and constrain opportunities for improvement.

Impacts To Archaeological Resources

Impacts to archaeological resources would generally follow those to be discussed under the Proposed Action Alternative. Differences would largely result from variation in the disposal and acquisition patterns. Types of impacts would remain the same. There would be less land (and site) acquisition in the archaeological resource rich Trinity River, Forks of Butte, Battle Creek, Deadwood/French Gulch, and Shasta River zones, and no acquisition in the potentially rich Shasta Valley and Clear Creek areas. While it is very difficult to determine what land tenure actions would be most likely in this land-use management alternative over the duration of the plan, probably somewhere in the vicinity of 125 to 500 sites would be acquired while disposal activities could result in the loss of 75 to 350 sites, most not of National Register quality. The pluses and minuses of these actions are discussed in the Proposed Action Alternative.

Negative impacts would continue from fuelwood cutting and associated vehicular use, cattle trampling, looting, collecting, erosion/deposition, and mining, especially assessment work. A dozen or two sites might be affected in any one year. Camping along the Klamath River could lead to site damage at several locations, as in the other alternatives. Deer winter herd management at Horseshoe Ranch would be the same as the Proposed Action Alternative, with perhaps a dozen sites damaged over the length of the plan. Increased access in areas such as along the Sacramento River and the Gene Chappie/Shasta Off-Highway Vehicle Area could lead to looting, vehicular damage, and other negative impacts at up to 25 sites, if careful attention is not implemented.

Protection-related activities for the watershed and viewshed around Lake Oroville could enhance the preservation of 5 to 25 or more sites of various types. Additional impacts for this, and all land-use management alternatives are displayed within Table 4-2.

Impacts to Deer Winter Range

Hayfork and Weaverville Deer Herd Range

This land-use management alternative lists several actions that could influence deer winter range management and deer populations over the 15 year scope of this RMP. However, these actions should not result in any significant impacts to the deer winter range or deer populations. These include land exchanges, sales and land transfers authorized under the Recreation and Public Purposes Act involving less than 180 acres in

TABLE 4-2

OVERALL POTENTIAL NEGATIVE IMPACTS TO BLM ARCHAEOLOGICAL RESOURCES

MGMT. AREA	IMPACT TYPE	PROP. ACTION	NO ACTION	ADMIN. ADJUST.	ENHANCE NATURAL	RES. USE W/ NAT.	RES. USE
SCOTT VALLEY	I	L	L	L	L	L	L
	II	L	L	L	L	L	L
	III	L	L	L	L	L	L
	IV	L	L	M	L	L	L
KLAMATH	I	L	L	L	L	L	L
	II	L	L	L	L	L	L
	III	L	L	L	L	L	L
	IV	M	M	M	M	M	M
TRINITY	I	L	L	L	L	L	L
	II	M	M	M	M	M	M
	III	M	L	M	L	M	H
	IV	L	M	M	L	L	M
SHASTA	I	L	L	L	L	L	L
	II	M	M	M	M	M	M
	III	L	M	M	M	M	H
	IV	M	M	M	M	M	M
ISHI	I	L	L	L	L	L	L
	II	M	M	M	M	M	M
	III	M	M	M	M	M	H
	IV	L	M	M	L	L	M
YOLLA BOLLY	I	L	L	L	L	L	L
	II	L	L	L	L	L	L
	III	L	L	L	L	L	L
	IV	L	L	L	L	L	L
SACRAMENTO	I	L	L	L	L	L	-
	II	L	L	L	L	L	-
	III	L	M	M	L	M	-
	IV	L	L	L	L	L	-

I = FORESTRY RELATED IMPACTS
II = MINERAL DEVELOPMENT RELATED IMPACTS
III = RECREATIONAL USE RELATED IMPACTS
IV = LANDS USE RELATED IMPACTS (Primarily disposal and acquisition)

L = LOW (Little or no impacts)
M = MEDIUM (Potentially moderate adverse effects on 1 to 5 sites per year)
H = HIGH (Potentially adverse effects on more than 5 sites per year)

developed areas. It is felt that these areas have already been impacted to the degree that they are no longer suitable as deer winter range, although they may support a limited number of animals. These also include timber harvest operations which have impacts mitigated through compliance with the California Forest Practices Act, the California Environmental Quality Act, or the National Environmental Policy Act and generally provide some beneficial impacts to the winter range. Finally, these include deer winter range improvement projects, which are limited in size and provide only insignificant forage increases within the winter range.

Whiskeytown Deer Herd Range

There is one deer herd using the Shasta Management Area, the Whiskey Town Deer Herd. The deer winter range for this herd consist of approximately 52,500 acres, of which 17,700 are administered by BLM. There would not be any significant change in the amount of deer habitat, or the deer population under the No Action Alternative. Forage allocations and logging operation impacts were identified and mitigated in the Redding Grazing Environmental Impact Statement and the Final Timber Management Plan and Environmental Assessment for Sustained Yield Unit 15. Mitigating measures were also identified for the Gene Chappie/Shasta Off Highway Vehicle Area in the environmental analysis completed for that project.

Impacts To Scenic Quality

Scenic quality would be safeguarded within the Trinity River Corridor, along the Sacramento River, the upper Klamath River between the Oregon border and Copco, within Beegum Gorge, along Muletown Road near Redding within the viewsheds of the Shasta Dam Scenic Drive, the Forks of Butte Creek Recreation Area, and the Whiskeytown Unit of the National Recreation Area.

Over the remainder of the Redding Resource Area, scenic quality protection would not be prescribed and actions which could degrade scenic quality could occur. The most noticeable effects would probably occur on public lands transferred from public ownership near towns, where new land-uses or development might contrast strongly with the characteristic landscape or where the undeveloped public land provided the surrounding area's only visual relief from urban residential or industrial development. The scenic quality of these areas would continue to degrade irrespective of BLM actions. Moreover, the existing scenic quality rating of public lands is either "C" or in some cases "B" within these areas. Therefore, BLM permitted actions are inconsequential when viewed cumulatively with the actions of others.

Impacts To Slender Orcutt Grass

This land-use management alternative would cause no degradation to the six BLM administered sites containing 7.6 acres of suitable habitat acres. The three populations (sites) located on private lands which contain 106.2 acres, could be degraded and destroyed due to overgrazing and urban development. Currently 1.2 acres of these lands are being degraded by over-grazing. Although protection of BLM administered populations may safeguard against the extinction of this species, the overall trend for the species would be downward due to the actions of others. Therefore, BLM actions would have minimal beneficial consequences for the species when viewed cumulatively.

Impacts To Spotted Owl

Coupled with other Federal, state, and private actions, the cumulative impact of this alternative would be insignificant to the Resource Area spotted owl population. Of the 173 spotted owl pairs estimated to be present within the Resource Areas' Designated Conservation Areas, one pair would likely have lowered reproductive success, and individual owl movement into and from the Designated Conservation Areas may be slightly impeded. Of the 395,000 to 495,000 acres of habitat located outside the Designated Conservation Areas, but within the Redding Resource Area boundary, 4,798 acres of habitat (superior, suitable and marginal) within the BLM key areas would be moderately degraded, and 1,288 acres would be protected through Wilderness management and owl management. All actions that would adversely affect the spotted owl (including habitat) would require consultation with the U.S. Fish and Wildlife Service. A summary of Key Area impacts follow:

Crater Creek:

This area would be available for exchange or sale; while in the interim, BLM management actions would be evaluated on an individual basis to determine compliance with the Endangered Species Act (ESA). Some degradation would likely occur to the 170 acres of suitable habitat if the parcel was transferred to the private sector. No impacts would occur to the pair of spotted owls located within the Designated Conserva-

tion Area (DCA) that encompasses this key area due to the abundance of habitat protected within the DCA.

Eastman Gulch:

This area would be available for exchange or sale; while in the interim, BLM management actions would be evaluated on an individual basis to determine compliance with the Endangered Species Act (ESA). Some degradation would likely occur to the 25 acres of superior, 768 acres of suitable and 22 acres of marginal habitat if these parcels were transferred to the private sector causing the single spotted owl pair to have limited breeding success.

Quartz Hill:

This area would be available for exchange or sale; while in the interim, multiple use management subject to compliance with the Endangered Species Act (ESA) would be emphasized. If private industry were to obtain these parcels, degradation could occur to the remaining 170 acres of suitable and 15 acres of marginal habitat. The single spotted owl would likely be displaced from the area or nonreproductive due to the impacts that past timber harvesting has had upon habitat located on BLM and private lands.

Rich Gulch:

This area would be available for exchange or sale; while in the interim, multiple use management subject to compliance with the ESA would be emphasized. While under BLM jurisdiction, timber harvests would likely alter the currently 1,199 acres of suitable, and 593 acres of marginal habitat. Because this area contains only a limited amount of spotted owl habitat which could be degraded through timber harvesting, the single male spotted owl would likely be unsuccessful in mating and reproducing.

Scott Valley Block:

This area would be available for exchange or sale; while in the interim, multiple-use management subject to compliance with the ESA would be emphasized. While under BLM jurisdiction, timber harvests would likely alter the 24 acres of superior, 1,793 acres of suitable and 19 acres of marginal habitat. Limited amounts of contiguous BLM habitat would likely be insufficient in sustaining current owl pairs, therefore, the two owl pair would likely be displaced from the area or forced to proliferate on private lands. If these noncontiguous parcels were transferred to the private sector, comprehensive Federal management of the area would be foregone and individual owl movement between Designated Conservation Areas may be slightly impeded through subsequent piecemeal timber harvests. These parcels may provide significant continuity to substantial habitat located to the east, west and south.

Tunnel Ridge:

This area, designated as Wilderness, would be managed by BLM in accord with the U.S. Forest Service. No degradation to the 251 acres of superior, 573 acres of suitable and 314 acres of marginal habitat would be expected. The single spotted owl within the key area would likely mate and be reproductive due to the abundance of habitat that creates a suitable home range.

Willow Creek:

This area would be retained by BLM and managed to preserve owl habitat in accord with the U.S. Forest Service Conservation Area that it adjoins. No degradation to the 150 acres of suitable habitat would be expected. The six pairs of spotted owls within the HCA would not be impacted.

Impacts to waterfowl/Wetland Habitat

Klamath Management Area

Currently the Shasta Valley Wetlands and Grass Lake areas are being used for agriculture, grazing of domestic livestock, and for large scale cattle feed lots. These types of use are generally not compatible with optimum production of wildlife populations, although at times these types of uses can be manipulated to benefit or enhance various types of wildlife habitat. Continued uses of these types in and around wetlands will continue to decrease water quality, vegetative vigor, density and composition.

Sacramento River Management Area

Under this land-use management alternative, projects that have been developed to date within the Sacramento River Management Area should increase waterfowl use by 40 to 60 percent during the winter and early spring months. wetlands have been increased from 35 acres to 80 acres in the Paynes Creek Habitat Management Plan Area. These impacts, being significant on a local level but insignificant on a regional level, will contribute to increasing wintering habitat in California and offer

some minor benefits to waterfowl migrating out the Central Valley.

ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

Impacts to Anadromous Salmonid Habitat

Under this land-use management alternative, important purchases of key habitat areas would occur on the Trinity River, Sacramento River, Shasta River and Klamath River. A portion of Canyon Creek would be transferred to the U.S. Forest Service. Minor public ownership in several key areas would be available for exchange.

BLM presently administers 44 miles within key habitat areas. BLM would acquire 37 1/2 miles of additional key habitat and would consider disposal via exchange of 8 miles of key areas. Overall, 73 1/2 miles (or less than one-half of the total of all key habitat areas) would be managed by BLM at the end of the planning horizon of this RMP.

BLM approved actions when viewed cumulatively with other non-BLM actions would have negligible adverse or beneficial consequences within the Klamath, Sacramento, and Shasta river systems incorporating any below key area. The limited amount of BLM administered habitat and the regulation of water quality and quantity by others within these river systems relegate BLM approved actions to an inconsequential level. In contrast, protection of key habitat in the Trinity River system will complement the overall effort to restore the anadromous fisheries.

The consequences for each specific key area under this land-use management alternative includes:

Battle Creek:

Five miles of existing public ownership would be available for disposal via exchange. All of this mileage is located above the Coleman Hatchery. Loss of public ownership would somewhat limit opportunities to maintain or improve the overall condition of the stream for upstream spawners.

Canyon Creek:

The existing three miles of public ownership would remain in Federal management. The U.S. Forest Service would manage this segment as a "Recreational" component of the National Wild and Scenic Rivers System. The condition of this key habitat area would remain stable.

Clear Creek:

The 1/2 mile of public ownership above Placer Street bridge would remain in Federal management. The 1/2 mile of public ownership below Placer Street would be available for exchange. The trend would remain downward on this stream.

Cottonwood Creek:

The 1/2 mile of public ownership would remain in the management of some public or conservation organization. BLM actions in this key area would be inconsequential.

Deer Creek:

No acquisitions would be made within the eight-mile key habitat area. Hydroelectric development is doubtful and projected private land-uses would not significantly affect the condition of the habitat.

Dry Creek:

BLM would continue to administer the 1/2 mile of existing public ownership. Condition of this key area is good and would remain stable.

Indian Creek:

The one-half mile of existing public ownership within this key area would be available for exchange. BLM actions would be inconsequential.

Klamath River:

The entire 6 mile key area would be placed in public ownership with restrictions on grazing, mineral development, and motorized vehicle use. These actions would improve the long-term condition of this key area.

Mill Creek:

The entire 1/2 mile of public ownership would be administered by The Nature Conservancy. This action would have little affect on the condition of this key area.

North Fork Trinity River:

The one mile of public ownership would remain in BLM administration. The withdrawal of this segment from mineral entry would ensure the long-term stability of the habitat.

Reading Creek:

The one-half mile of existing public ownership within this key area would be available for exchange. BLM actions would be inconsequential.

Rush Creek:

The one-quarter mile of existing public ownership within this key area would be available for exchange. BLM actions would be inconsequential.

Sacramento River:

The consequences of this land-use management alternative are identical to the No Action Alternative.

Shasta River:

Three and one-half miles of this stream would be acquired. Restrictions on grazing, mineral development and motorized vehicle use will significantly improve the probability of long-term habitat protection.

Trinity River:

Under this alternative 34 1/2 miles on one or both sides of this important river would be placed in public ownership. Restrictions on grazing, motorized vehicle use, and forestry actions would significantly improve the potential to protect and improve the existing quality of this critical key habitat area. Acquisition of 15 1/2 miles of this river would greatly facilitate this effort.

Impacts To Archaeological Resources

See the Proposed Action Alternative for discussion of impacts regarding land acquisitions and disposal and deer herd management in the Horseshoe Ranch area. This land-use management alternative would tend to be imbalanced toward disposal of archaeological sites, although important sites would be potentially acquired along the Klamath, Sacramento, and Trinity rivers, including the historic gold mining community of Helena and large riverine Indian villages. There may be up to 200 sites involved, 25% or more possibly eligible for the National Register of Historic Places largely within districts. Transfer of the Cedar Gulch Indian Cemetery could lead to closer scrutiny and protection. Transfer of lands to the State of California in the Lake Oroville area has the potential for added site protection through closer monitoring and other management. Currently, however, staffs are being cut and looting remains a big concern on all midden sites in this area.

Acquisitions in the Gene Chappie/Shasta Off-Highway Vehicle Area may lead to an increase in historic sites in BLM administration, perhaps 50 or more sites. However, better access may lead to illegal collection and vandalism to an unknown number of sites but no doubt less than 25-50. Disposal may result in the transfer of somewhere in the vicinity of 100-700 sites, most of which probably are not eligible for inclusion in the National Register of Historic Places. Potential impacts from such an action have been previously discussed.

Mineral development within the 100 year flood plain of the Trinity River may have negative impacts to several archaeological sites.

Impacts To Deer Winter Range

Hayfork and Weaverville Deer Herd Winter Range

Under this alternative most of the deer winter range in both the Hayfork Deer Herd Unit and the Weaverville unit would be available for exchange. The transfer of 20 to 25 thousand acres of deer winter range to private interest could occur which would result in a loss of 18 to 23 percent of the existing deer winter range and probably a corresponding loss in deer populations levels.

Whiskeytown Deer Herd Winter Range

There would not be any impacts, adverse or beneficial under this alternative.

Impacts To Scenic Quality

Scenic quality would be maintained on public lands along the Klamath, Shasta, Trinity and Sacramento Rivers, as well as public lands within 1/4 mile of streams eligible for inclusion in the Wild and Scenic Rivers System. Scenic quality would also be protected on public lands within the viewshed of Forks of Butte Creek Recreation Area, Whiskeytown Lake, and Shasta Dam Scenic Drive. Scenic quality would not be protected on the remainder of the area's public lands. Degradation to scenic quality would occur wherever these lands were

converted to uses which would create contrasts to the characteristic landscape. Scenic quality degradation would be gradual in most places. Background scenery adjoining the river corridors noted above could reasonably be degraded. Scenic quality degradation would occur irrespective of BLM approved actions. Transfer of public lands to the private sector, coupled with BLM management actions, would contribute and perhaps hasten the cumulative scenic quality degradation in areas near the towns of Redding and Weaverville.

Impacts To Slender Orcutt Grass

Impacts would be the same as those within the No Action Alternative except that some parcels containing populations could be disposed of to acquire high value resource lands elsewhere. Although this has a low potential of occurring, impacts to BLM's 6 sites containing 7.6 acres would be minimal due to the protective covenants that would be attached to these sites. Even with protective convenants, the trend for the species would continue downward due to the actions of others. Therefore, the actions of BLM would have minimal beneficial consequences for Orcuttia tenuis when viewed cumulatively.

Impacts To Spotted Owl

Coupled with other Federal, state, and private actions, the cumulative impact of this land-use management alternative would be insignificant to the Resource Area spotted owl population. One of the 173 owl pairs located within the Resource Area's Designated Conservation Areas would have a greater chance at breeding successfully, although individual owl movement into and from the Designated Conservation Areas may be slightly impeded. Of the 395,000 to 495,000 acres of habitat located outside Designated Conservation Areas, but within the Redding Resource Area boundary 4,079 acres of habitat (superior, suitable and marginal) within the BLM key areas would be moderately degraded, and 2,007 acres would be protected through Wilderness management and Owl Habitat Area designation. All actions that would adversely affect the spotted owl (including habitat) would require consultation with the U.S. Fish and Wildlife Service. A summary of Key Area impacts follow:

Crater Creek:

This area would be designated as an Owl Habitat Area (OHA) and transferred to the U.S. Forest Service to be managed in accord with their Conservation Area that encompasses the area. Comprehensive Federal management of the OHA and Conservation Area would likely be beneficial to the single pair of spotted owls located within the Designated Conservation Area.

Eastman Gulch:

This area would be available for exchange. Approximately 549 acres of suitable habitat within this area would be protected with the designation of an Owl Habitat Area, and the remaining habitat (25 acres of superior, 219 acres of suitable and 22 acres of marginal) would be available for timber harvest while in the interim. If this area was transferred to the private sector, timber harvest activities outside the OHA would significantly alter habitat conditions. The single spotted owl pair would likely have greater success at breeding due to habitat protection resulting from OHA designation.

Quartz Hill:

This area would be retained by BLM and a cooperative management agreement would be sought in order to manage this area as described within the Enhancement of Natural and Cultural Values Alternative. Habitat improvement projects would likely increase the suitable habitat within the area. It would be reasonable to expect that the 15 acres of currently marginal habitat could reach suitable conditions within 30 years through intensive management bringing the total of suitable habitat to 185 acres. The single spotted owl would likely be displaced from the area due to the impacts that past timber harvesting has had upon habitat located on BLM and private lands.

Rich Gulch:

This area would be available for exchange; while in the interim, multiple-use management subject to compliance with the ESA would be emphasized. These parcels would most likely be acquired by the US Forest Service and managed in accord with their lands that surround the area. While under BLM jurisdiction, timber harvests would likely alter the currently 1,199 acres of suitable, and 593 acres of marginal habitat. If the US Forest Service acquired this area, comprehensive management could aid in future owl conservation planning. Because this area contains only a limited amount spotted owl habitat which could be degraded through timber harvesting, the single spotted owl would likely be unsuccessful in mating and reproducing.

Scott Valley Block:

This area would be available for exchange; while in the interim, multiple-use management subject to compliance with the ESA would be emphasized. While under BLM jurisdiction, timber harvests would likely alter the 24 acres of superior, 1,793 acres of suitable and 19 acres of marginal habitat. Alteration of spotted owl habitat resulting from timber sales or other BLM actions would probably result in the loss of production from these owls although they would probably remain in their current activity centers. If these noncontiguous parcels were transferred to the private sector, comprehensive Federal management of the area would be foregone and individual owl movement between Designated Conservation Areas may be slightly impeded through subsequent piecemeal timber harvests. These parcels may provide significant continuity to substantial habitat located to the east, west and south.

Tunnel Ridge:

This area would be transferred to the U.S. Forest Service to be managed as Wilderness. Comprehensive management of this area could be a beneficial action. The single spotted owl within the key area would likely attract a mate because of the abundance of habitat.

Willow Creek:

This area would be transferred to the U.S. Forest Service to be managed in accord with their Conservation Area. The six pairs of spotted owls within the Designated Conservation Area would not be impacted.

Impacts To Waterfowl/Wetland Habitat

No acquisition of wetlands was identified in this land-use management alternative, impacts would be the same as for the No Action Alternative for the Sacramento and Klamath Management Areas.

ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE

Impacts to Anadromous Salmonid Habitat

Under this land-use management alternative, virtually all key areas would be managed by BLM or some other organization to protect the critical anadromous salmonid habitat. Only the one mile length of the Shasta River between the Interstate 5 bridge and Yreka Creek would not be under public stewardship.

The beneficial consequences of BLM approved actions would be imperceptible within the Klamath and Shasta river systems incorporating any below key area. The relative lack of BLM administered habitat and the actions of others when viewed cumulatively would constrain BLM opportunities to improve the overall quality of these anadromous fisheries. Within the Sacramento River, BLM actions when viewed in concert with the planned actions of others would have a minor stabilizing impact on the anadromous fisheries mainly due to the enhancement of Clear Creek, and to a much lesser degree, Butte Creek. Protection of key habitat in the Trinity River system would complement the overall effort to restore the anadromous fisheries. A summary of key area impacts follow:

Battle Creek:

The entire length (40 miles) of this stream below the Ponderosa Way bridge would be under public ownership. Thirty-five miles of stream would be acquired. These acquisitions, coupled with restrictions on vehicle use, mineral development activities, and grazing could greatly enhance the wild fisheries above Coleman Hatchery. Success in this habitat enhancement would, however, be constrained by existing water control features.

Canyon Creek:

One additional mile of this key habitat area would be acquired to add to the existing three miles in BLM administration. Restrictions on vehicle use, seasonal uses and mineral material sales would improve the potential to maintain the stability of this habitat.

Clear Creek:

All of this important segment (13 miles) would be managed to protect anadromous salmonid habitat. Restrictions on vehicles, mineral development, and the acquisition of 12 miles of this stream would result in a significant improvement in the quality of the existing habitat and contribute noticeably to the production of anadromous salmonids in the Sacramento River.

Cottonwood Creek:

The consequences of this land-use management alternative are identical to the Administrative Adjustment alternative.

Deadwood Creek:

Acquisition of two miles of this stream and the protection afforded under restrictions on vehicle use and mineral development would aid in the enhancement of this spawning stream along the entire three mile segment.

Deer Creek:

The entire eight mile segment would be acquired under this alternative. Restrictions on grazing, vehicle use, mineral development and scenic quality would provide long-term protection of this regionally important stream segment.

Dry Creek:

BLM would continue to administer the 1/2 mile of existing public ownership. The condition of this key area is good and would remain stable. Restrictions on vehicle use, grazing and mineral development would ensure the ability of BLM to maintain the habitat quality for spawning steelhead.

Indian Creek:

BLM would acquire the private owned balance (2 1/2 miles) of this 3 mile segment. The condition of this stream would remain stable.

Klamath River:

The consequences of this land-use management alternative are identical to the Administrative Adjustment alternative.

Mill Creek:

The consequences of this land-use management alternative are identical to the Administrative Adjustment alternative.

North Fork Trinity River:

The consequences of this land-use management alternative are identical to the Administrative Adjustment alternative.

Reading Creek:

Two and one-half miles of this key area would be acquired. The entire 3 mile segment would remain in stable condition.

Rush Creek:

Two and three-quarter miles of this key area would be acquired. Protection of this segment from further development would ensure the stability of the existing habitat.

Sacramento River:

Eighteen miles of this river would be acquired. Public ownership of the entire 25 mile segment would ensure the protection of the habitat from the incremental negative impacts of land development. Opportunities for habitat improvement projects, principally rearing channels, would be maximized under this alternative.

Shasta River:

The consequences of this land-use management alternative are identical to the Administrative Adjustment alternative.

Trinity River:

Restrictions placed on mineral development, coupled with greatly restricted timber harvest and grazing would appreciably contribute to the quality of the fishery. Implementation of this alternative would increase Federal administration of the river to 31 1/2 miles with the acquisition of 15 1/2 miles in this critical key habitat area. Potential acquisition of the Grass Valley Creek watershed could provide excellent opportunities to reduce sediment loads entering the Trinity River via Grass Valley Creek. Acquisition of 6 miles of Grass Valley Creek, could improve steelhead habitat within the lowest reaches.

Impacts to Archaeological Resources

This land-use management alternative would be the most beneficial to the protection of archaeological resources. Helpful actions include the acquisitions of lands in Quartz Hill, Forks of Butte, Deadwood/French Gulch, and along the Trinity River where many historic mining related sites can be found; and in the areas of Jenny Creek, upper Shasta Valley, Deer Creek, Battle Creek, Clear Creek, the Sacramento and Klamath rivers,

and Crystal Hill/Kanaka Hill where a wide range of prehistoric and some historic sites are situated. The positive and negative effects of acquisition are spelled out in previous sections. There would be fewer negative impacts under this alternative with closer management scrutiny of surface-disturbing activities and more attention devoted to resource protection. Potentially 300-500 or more sites could be acquired, over 25% of which might be eligible for inclusion in the National Register of Historical Places. Disposal of public lands in this alternative could lead to some site impacts as previously discussed. Disposal may include perhaps as many as 50 to 250 sites, most of which are probably not eligible for the National Register.

Other actions potentially favorable to archaeological sites include the designation of ACEC's at Swasey Drive, Forks of Butte, Shasta River/Black Mountain, Sacramento River, Deer Creek, and Crystal Hill/Kanaka Hill where closer management attention would favor site preservation, research/conservation, and interpretation. Better site protection would probably result from the transfer of certain locations to other agencies, as with lands near Old Shasta. Transfer of the Mill Creek parcels to The Nature Conservancy will help safeguard the four of five sites there. Public-interpretation focused activities in the Keswick to Sugarloaf Hill area would lead to favorable development of certain historic sites related to the early mining developments of Shasta County. Habitat management activities in the Horseshoe Ranch and Yolla Bolly locations could lead to some impacts to as many as 15-25 sites without careful attention and planning prior to activities undertaken cooperatively. Piecemeal approaches in the past have been found to be defective.

Impacts To Deer Winter Range

Under this alternative there are several land-use management actions that could improve deer winter range conditions and possibly have beneficial impacts to the deer populations. There is one management action for the Hayfork Deer Herd that could result in adverse impacts for that deer herd. These management actions and their impacts on deer ranges are as follows:

Weaverville Deer Herd Winter Range.

With the acquisition of 38,400 acres of undeveloped private lands, closure of designated roads and trails between November 15 through April 15, and allowing timber harvest only when not in conflict with other natural resources, beneficial impacts would occur to both the deer winter range and the deer population. The implementation of these actions would result in improvements in thermal cover and forage areas, and would increase escape cover and lessen disturbance during the winter months. These habitat improvements would result in a healthier deer herd, better fawn production and survival, and an increase in deer population. It would not be unreasonable to expect a 15 to 25 percent increase in the existing deer herd.

Hayfork Deer Herd Winter Range

Because all public lands administered by BLM in the Hayfork Winter Range are available for exchange under this alternative, deer habitat would be reduced by approximately 10 percent (BLM administers approximately 10 percent of the lands in the deer winter range). Deer populations would be expected to decline; however, the extent of the decline would depend upon the quality of habitat lost, the types of uses and sizes of developed parcels, and the land exchanges or sales by other agencies in the area.

If these lands are exchanged to acquire lands in the Weaverville Deer Herd Winter Range, the quantity of habitat would increase once restrictions were placed on logging operations, roads and trails were closed during the winter months and the acquired lands were protected from development during of life of this plan. These changes could result in a 10 percent increase in habitat on BLM administered lands and 3.4 percent habitat increase for the Weaverville Deer Herd Winter Range.

Whiskeytown Deer Herd

Management actions that would have a beneficial impact to the winter range for the Whiskeytown Deer herd include the acquisition of unimproved private lands, improvements in deer winter range conditions, and closure of specific roads and trails between November 15 and April 15 (period when deer are present).

If BLM were to acquire all of the lands identified in this land-use management alternative, there would probably not be a significant beneficial impact to the deer winter range or deer populations because most of these lands are currently undeveloped and the potential for development in this area seems to be remote. Closing specific roads and trails in the Gene Chappie/Shasta Off-Highway Vehicle Area would result in reducing stress to wintering deer and could improve fawn survival during the fawning season. This should lead to some small

population increases (less than 10 percent) in the deer herd. Improvement of the deer winter range by vegetative manipulation would increase deer populations if a minimum of 5000 acres of habitat were treated each year.

Impacts To Scenic Quality

Scenic quality would be protected or enhanced throughout most of the Resource Area under this alternative. Visual Resource Management Class II prescriptions would be applied to the public lands along Butte Creek, Battle Creek, the Trinity River, the Sacramento River, the South Fork of Cottonwood Creek, the Shasta River, the Klamath River, Quartz Hill, within the viewshed of the Whiskeytown Unit of the National Recreation Area and the Shasta Dam Scenic Drive, as well as the Upper Ridge Nature Preserve. Deer Creek would be managed under a Visual Resource Management Class I prescription. The Middle Fork of Cottonwood Creek, Duncan Creek and Sunflower Flat areas would receive a Visual Resource Management Class III prescription, ensuring that management actions would repeat the basic elements of the characteristic landscape. Public land transfers or disposals under this alternative would not negatively affect scenic quality. Scenic quality would continue to degrade around populated areas of the Resource Area , especially around Redding. Retention of public land ownership in these areas would have minimal consequence in this overall situation.

Impacts To Slender Orcutt Grass

This alternative would have beneficial impacts by improving the quality and quantity of this species by providing better protection with the ACEC designations, and by assuring the long term survival of this species through acquisition or cooperative management of 3 sites, involving 106.2 acres of suitable habitat presently located on private lands. Overall, this alternative would ensure the perpetuation of the species principally due to the actions of BLM and their cooperators. The actions of others would, however, degrade any remaining habitat at privately owned sites outside the Sacramento River Management Area.

Impacts To Spotted Owl

Although this alternative could have significant beneficial and localized impacts to specific spotted owls, the cumulative impact of this land-use management alternative would be insignificant. One of the 173 spotted owls present within the Resource Areas' Designated Conservation Areas would have a greater chance at breeding successfully, and individual owl movement between the Designated Conservation Areas would be eased. Of the 395,000 to 495,000 acres of habitat located outside the Designated Conservation Areas, but within the Redding Resource Area boundary, no habitat within the BLM key areas would be degraded; all 6,086 acres would be protected through Wilderness management, Owl Habitat Area designation and highly restrictive timber harvest. All actions that would adversely affect the spotted owl (including habitat) would require consultation with the U.S. Fish and Wildlife Service. A summary of Key Area impacts follow:

Crater Creek:

This parcel would be designated as an Owl Habitat Area (OHA) and would be retained by BLM. Surrounding available private lands adjacent to the OHA would be acquired (see Scott Valley Block) thereby increasing Federal comprehensive management of this area. Utility of the current 170 acres of habitat would increase with the possibility of adjacent habitat enhancement. The single pair of spotted owls located within the Designated Conservation Area that encompasses this Key Area would likely benefit from retention of this area.

Eastman Gulch:

This area would remain under BLM administration and available private lands adjoining the area would be acquired. Approximately 549 acres of suitable habitat within this area would be protected with the designation of an Owl Habitat Area, and the remaining habitat (25 acres of superior, 219 acres of suitable and 22 acres of marginal) would be restricted from intensive timber management. The single spotted owl pair would likely have greater success at breeding with the designation of an OHA and highly restrictive timber harvests.

Quartz Hill:

This area would be retained by BLM and available private lands would be acquired to facilitate comprehensive management of the area. Habitat improvement projects would likely increase the suitable habitat acreage within this area. It would be reasonable to expect that the 15 acres of currently marginal habitat could reach suitable conditions within 30 years through intensive management bringing the total of suitable habitat to 185 acres. The single spotted owl would likely be displaced from the area due to the impacts that past

timber harvesting has had upon habitat located on BLM and private lands.

Rich Gulch:

This area would be retained by BLM and available private lands would be acquired to facilitate comprehensive management of the area. Timber harvesting would be strongly restricted and no degradation to the 1,199 acres of suitable and 593 acres of marginal habitat would occur. The single spotted owl would have a greater chance in mating and reproducing due to the protection and enhancement of currently limited amounts of contiguous habitat.

Scott Valley Block:

This area would be retained in BLM ownership, and available private lands adjacent to BLM lands would be acquired. Through comprehensive Federal management, it would be reasonable to expect that suitable habitat within BLM jurisdiction in the area could increase to over 3,000 acres if all of the lands identified were acquired. At most, Federal comprehensive management and subsequent habitat improvement within this area may successfully create a suitable home range for the two BLM pair of spotted owls. At minimum, individual owl movement between Designated Conservation Areas would be eased due to restrictive timber harvests.

Tunnel Ridge:

This area would be transferred to the U.S. Forest Service to be managed as Wilderness. Comprehensive management of this area would be a beneficial action. The single spotted owl would likely attract a mate due to the abundance of habitat.

Willow Creek:

This are would be transferred to the U.S. Forest Service to be managed in accord with their Conservation Area. The six pairs of spotted owls within the Designated Conservation Area would not be impacted.

Impacts to Waterfowl/Wetland Habitat

Through implementation of this land-use management alternative, some negative impacts could occur in both the Klamath and Sacramento River Management Areas due to increased public recreation opportunities. These impacts would be stress related and should not be significant during the 15 year time frame of this RMP.

Klamath Management Area

This land-use management alternative has identified, through exchange or purchase from willing sellers, the acquisition of approximately 31,774 acres of wetlands in the Shasta Valley and Grass Lake. Management actions for this alternative include: long term protection and enhancement of native wetlands, enhancement of native waterfowl and upland wildlife habitat. If these management actions are implemented, there could be a 15 to 20 percent increase in waterfowl production. The 31,774 acres would be protected from future draining or development.

Sacramento River Management Area

Under this alternative, several parcels of private land have been identified for acquisition in the Sacramento River Management Area that either contain wetlands or have potential for development of new wetlands. Successful acquisition of these lands would improve habitat conditions on many of these areas by reducing competitive uses, such as grazing, and other agricultural uses. There would also be an opportunity for development of new wetlands on several parcels. Waterfowl wintering areas would be increased by two to three hundred acres, resulting in a corresponding increase in wintering waterfowl population of 60 to 80 percent greater than the No Action Alternative. Waterfowl production would possibly increase slightly.

RESOURCE USE WITH NATURAL VALUES CONSIDERATION ALTERNATIVE

Impacts to Anadromous Salmonid Habitat

Under this land-use management alternative, protection of many of the key areas would be ensured through major acquisitions along the Sacramento River, Battle Creek, Trinity River, Shasta River, and Klamath River. BLM and other public agencies would retain ownership in 39 miles of key habitat area and acquire an additional 93 1/2 miles of key habitat. BLM would consider disposal, via exchange, of approximately 5 miles of key habitat area. Overall this land-use management alternative would have very beneficial impacts to anadromous salmonid habitat.

The beneficial consequences of BLM approved actions would be imperceptible within the Klamath and Shasta

river systems incorporating any below key area. The relative lack of BLM administered habitat and the actions of others when viewed cumulatively would constrain BLM opportunities to improve the overall quality of these anadromous fisheries. Within the Sacramento River, BLM actions, when viewed in concert with the planned actions of others, would have a minor stabilizing impact on the anadromous fisheries mainly due to the enhancement of Clear Creek. Protection of key habitat in the Trinity River system would complement the overall effort to restore the anadromous fisheries. A summary of Key Area impacts follow:

Battle Creek:

BLM would consolidate public ownership and administration in the lower twenty miles (below Manton Road bridge) of this important stream. Acquisition of 19 miles of stream, restrictions on vehicle use, mineral development, and grazing would accelerate the restoration of this formerly significant stream. Success would still depend on the ability to allow passage of fish past water control structures. The disposal of five miles of public ownership above Manton Road would somewhat limit opportunities to maintain, or improve, the overall condition of the stream for upstream spawners.

Canyon Creek:

The consequences of this land-use management alternative are identical to the Enhancement of Natural and Cultural Values Alternative.

Clear Creek:

The consequences of this land-use management alternative are identical to the Enhancement of Natural and Cultural Values Alternative.

Cottonwood Creek:

The consequences of this land-use management alternative are identical to the Administrative Adjustment Alternative.

Deadwood Creek:

The consequences of this land-use management alternative are identical to the Enhancement of Natural and Cultural Values Alternative.

Deer Creek:

The consequences of this land-use management alternative are identical to the Enhancement of Natural and Cultural Values Alternative.

Dry Creek:

The consequences of this land-use management alternative are identical to the Enhancement of Natural and Cultural Values Alternative.

Indian Creek:

The consequences of this land-use management alternative are identical to the Enhancement of Natural and Cultural Values Alternative.

Klamath River:

The consequences of this land-use management alternative are identical to the Administrative Adjustment alternative.

Mill Creek:

The consequences of this land-use management alternative are identical to the Administrative Adjustment alternative.

North Fork Trinity River:

The consequences of this land-use management alternative are identical to that of the Administrative Adjustment Alternative.

Reading Creek:

The consequences of this land-use management alternative are identical to the Administrative Adjustment Alternative.

Rush Creek:

The consequences of this land-use management alternative are identical to the Administrative Adjustment Alternative.

Sacramento River:

The consequences of this alternative are identical to the Enhancement of Natural and Cultural Values Alternative.

Trinity River:

The consequences of this alternative are similar to the Administrative Adjustment Alternative. Furthermore, acquisition of the Grass Valley Creek watershed could provide excellent opportunities to reduce the sediment load entering the Trinity River. Acquisition of 6 miles of Grass Valley Creek could improve steelhead habitat within the lowest reaches.

Impacts To Archaeological Resources

On balance this land-use management alternative would increase the protection of archaeological and historical sites. The major difference between this land-use management alternative and the Enhancement of Natural and Cultural Values Alternative is in the amount of archaeologically rich areas that would be acquired (less in this alternative) and the designation of fewer ACEC's with important archaeological resources, or less area within given ACEC's. Those areas with significant archaeological sites that are not earmarked for acquisition in this land-use management alternative as compared to the Enhancement of Natural and Cultural Values Alternative include Black Mountain, and locations along the Klamath and Trinity rivers, and along Jenny and Butte creeks. Less protection would be potentially afforded sites in the Sacramento River and Crystal Hill/Kanaka Peak areas without ACEC designation as access would be less restrictive and looting or illegal collecting may occur.

Overall, acquisitions would possibly bring between 200 and 400 sites into the public domain, 25% of which may be eligible for inclusion in the National Register of Historic Places. Disposal could result in the loss of somewhere in the vicinity of 50 to 150 sites, probably 90% or more not of National Register quality. Transfer of management responsibilities of the Cedar Gulch Cemetery to Native Americans and of lands around Old Shasta State Park to the State would help better protect archaeological locations on these lands. Similarly, transfer of administrative responsibilities of the parcels in Mill Creek Canyon to The Nature Conservancy would provide more protective oversight. Transfer of lands around Lake Oroville to the State might increase site protection, although water-based recreation is the dominant focus and staff cutbacks have recently lessened attention to the many instances of looting currently occurring at sites in this vicinity. Such a transfer might involve 25-50 sites.

Increased recreation use along the Trinity and Sacramento rivers and within the Gene Chappie/Shasta Off-Highway Vehicle Area, and area-wide road designation policies could lead to more access and impacts from looters, collectors, and vehicle enthusiasts, especially in those areas where road designations are not specific or are liberal with regard to use. Anywhere from 15 to 50 sites might be involved. Habitat improvement projects in select areas as discussed in the Enhancement of Natural and Cultural Values Alternative could damage 15-25 sites without full inventory and precise planning. Continued cattle grazing at designated levels and woodcutting might create impacts to several dozen sites, mostly lithic scatters and small middens. Finally, mineral development within the 100 year flood plain of the Trinity River may have negative impacts to several sites.

Impacts To Deer Winter Range

Although there are no specific management actions designed to increase and or improve deer winter range conditions, impacts through implementation of this land-use management alternative would be similar to those discussed within the Enhancement of Natural and Cultural Values Alternative.

Impacts To Scenic Quality

Scenic quality maintenance would be provided through Visual Resource Management Class II prescriptions for the Trinity River, Shasta/Klamath River canyon, Upper Klamath River, Sacramento River, Butte Creek, Battle Creek, as well as the viewshed for Whiskeytown NRA and the Shasta Dam Scenic Drive. Scenic quality would be enhanced for Deer Creek with a Visual Resource Management Class I prescription. The Sunflower Flat-Elkhorn Peak and Middle Fork Cottonwood Creek areas would receive the limited protection of a Visual Resource Management Class III prescription. Streams found to be Wild and Scenic eligible due to scenery would also be protected through Visual Resource Management Class II prescription until suitability could be determined. The remainder of the public lands would not have scenic quality protection. Scenic quality degradation in these other areas would occur irrespective of BLM approved actions. Transfer of public lands to the private sector would contribute and, perhaps, hasten the cumulative scenic degradation in areas near the towns of Redding and Weaverville.

Impacts To Slender Orcutt Grass

Implementation of this alternative would provide much of the same beneficial impacts offered by the Enhancement Of Natural And Cultural Values Alternative, although this alternative would not designate Areas of Critical Environmental Concern to further benefit orcutt populations and habitat. Acquisitions or cooperative agreements would assure long term survival of 3 sites and 106.2 acres of additional habitat presently in private ownership. Overall, this alternative would ensure the perpetuation of the species principally due to the actions of BLM and their cooperators. The actions of others would, however, degrade any remaining habitat at privately owned sites outside the Sacramento River Management Area.

Impacts To Spotted Owl

Coupled with other Federal, state, and private actions, the cumulative impact of this land-use management alternative would be insignificant to the Resource Area spotted owl population. One of the 173 spotted owl pairs located with the Resource Areas' Designated Conservation Areas would have a greater chance at breeding successfully, and individual owl movement into and from the Designated Conservation Areas may be slightly improved. Of the 395,000 to 495,000 acres of habitat located outside the Designated Conservation Areas, but within the Redding Resource Area boundary, 4,079 acres of habitat (superior, suitable and marginal) within the BLM key areas would be slightly degraded, and 2,007 acres would be protected through Wilderness management, Owl Habitat Area designation, and moderately restrictive timber harvesting. All actions that would adversely affect the spotted owl (including habitat) would require consultation with the U.S. Fish and Wildlife Service. A summary of Key Area impacts follow:

Crater Creek:

This area would be designated as an Owl Habitat Area (OHA) and transferred to the U.S. Forest Service to be managed in accord with their Conservation Area that encompasses the area. Federal comprehensive management of the OHA and Conservation Area would likely be beneficial to the single pair of spotted owls located within the Designated Conservation Area.

Eastman Gulch:

This area would remain in BLM administration and available private lands adjoining the area would be acquired. Approximately 549 acres of suitable habitat within this area would be protected with the designation of an Owl Habitat Area, and the remaining habitat (25 acres of superior, 219 acres of suitable and 22 acres of marginal) would be available for multiple use management (including timber harvest). Timber harvest activities outside the OHA may alter habitat conditions, pending compliance with the Endangered Species Act (ESA). The single spotted owl pair would likely have greater success at breeding with the designation of an OHA and acquisition of adjoining private lands.

Quartz Hill:

This area would be retained by BLM, and available private lands would be acquired to facilitate comprehensive management of the area. Multiple-use management would be emphasized (including timber harvest). Slight alterations of habitat conditions could occur, pending compliance with the ESA. The single spotted owl would likely be displaced from the area due to the impacts that past timber harvesting has had upon habitat located on BLM and private lands .

Rich Gulch:

This area would be retained by BLM and available private lands would be acquired to facilitate comprehensive management of the area. Multiple-use management (including timber harvest) would likely alter the presently 1,199 acres of suitable and 593 acres of marginal habitat, pending compliance with the ESA. Because this area contains only a limited amount of contiguous habitat which could be degraded through timber harvesting, the single spotted owl would likely be unsuccessful in mating and reproducing.

Scott Valley Block:

This area would be retained in BLM administration, and available private lands adjacent to BLM lands would be acquired. Through comprehensive Federal management, it would be reasonable to expect that suitable habitat within BLM jurisdiction could increase to over 2,500 acres if all of the lands identified were acquired. At most, comprehensive Federal management and subsequent habitat improvement within the area may successfully create a suitable home range for the two BLM pair of spotted owls. More likely, comprehensive

Federal management would ease individual owl movement into and from Designated Conservation Areas. Multiple-use management (including timber harvest) would likely alter habitat conditions, pending compliance with the ESA.

Tunnel Ridge:

This area, designated as Wilderness, would be managed by BLM in accord with the U.S. Forest Service. No degradation to the 251 acres of superior, 573 acres of suitable and 314 acres of marginal habitat would be expected. The single spotted owl in the area would likely mate and reproduce due to the abundance of habitat.

Willow Creek:

This area would be transferred to the U.S. Forest Service to be managed in accord with their Conservation Area. The six pairs of spotted owls within the Designated Conservation Area would not be impacted.

Impacts To Waterfowl/Wetland Habitat

Klamath Management Area

This land-use management alternative has identified, through exchange or purchase from willing sellers, the acquisition of approximately 17,480 acres of wetlands in the Shasta Valley. Management actions for this alternative include: long term protection and enhancement of native wetlands, enhancement of native waterfowl and upland wildlife habitat. If these management actions are implemented, there could be a 15 to 20 percent increase in waterfowl production. The 17,480 acres would be protected from future draining or development.

Sacramento River Management Area

Under this alternative, several parcels of private land have been identified for acquisition in the Sacramento River Management Area that either contain wetlands or have potential for development of new wetlands. Successful acquisition of these lands would improve habitat conditions on many of these areas by reducing competitive uses, such as grazing, and other agricultural uses. There would also be an opportunity for development of new wetlands on several parcels. Waterfowl wintering areas would be increased by two to three hundred acres, resulting in a corresponding increase in wintering waterfowl population of 60 to 80 percent greater than the No Action Alternative. Waterfowl production would possibly increase slightly.

RESOURCE USE ALTERNATIVE

Impacts to Anadromous Salmonid Habitat

Under this land-use management alternative, BLM would acquire significant lengths of key habitat areas on the Sacramento River and lower Battle Creek. Important acquisitions would also be made in the lowest stretches of the Shasta River, Deadwood Creek, Canyon Creek, and Indian Creek. BLM presently administers 44 miles within key habitat areas. BLM would acquire 31 miles of additional key habitat and would consider disposal via exchange of 6 miles of key areas. Overall, 69 miles (or less than one-half of all key habitat areas) would be managed by BLM at the end of the planning horizon of this RMP.

BLM approved actions when viewed cumulatively with other non-BLM actions would have negligible adverse or beneficial consequences within the major river systems incorporating these key areas. Refer to the No Action Alternative for the specific discussion of the overall impacts to the Klamath, Sacramento, Shasta and Trinity Rivers.

The consequences for each specific key area under this land-use management alternative includes:

Battle Creek:

Five miles of existing public ownership above Manton Road bridge would be available for disposal via exchange. Loss of this public ownership could constrain opportunities to maintain or improve the overall condition of anadromous salmonid spawning in this upper reach of the creek. This constraint is off-set, however, by significant acquisitions above and below Coleman Hatchery. Ten additional miles of the most important stretch of this creek would be acquired under this land-use management alternative. Restrictions on grazing, mineral development, and vehicle use would ensure long-term protection of the lowest eleven miles of this regionally significant stream.

Canyon Creek:

One additional mile of this key area would be acquired bringing the lowest four miles of this stream into public ownership. Management as a "Recreational" component of the National Wild and Scenic Rivers System would assist in protection of this stream since plans of operation for locatable mining activities would be required. However, protective management actions could be compromised by actions permitted under the 1872

Mining Law. Therefore, the condition of this key area would likely remain stable with limited opportunities for improvement.

Clear Creek:

The consequences of this land-use management alternative would be identical to the Administrative Adjustment Alternative.

Cottonwood Creek:

The consequences of this land-use management alternative would be identical to the Administrative Adjustment Alternative.

Deadwood Creek:

Under this alternative, BLM would add two additional miles of stream bringing all three miles of this area into public ownership. Restricting vehicles to designated roads and trails would help protect this stretch of stream. Opportunities for land subdivision would be foreclosed. The stream would, however, be open to mineral location and development. Therefore, the condition of the stream would remain in a stable condition with limited long-term enhancement opportunities.

Deer Creek:

The consequences of this land-use management alternative are identical to the Administrative Adjustment Alternative.

Dry Creek:

Under this alternative, the 1/2 mile of public ownership would be available for exchange. The condition of this steelhead spawning area would degrade as long-term monitoring and maintenance actions*' + ease.

Indian Creek:

The consequences of this land-use management alternative are identical to those described above for Deadwood Creek.

Klamath River:

No public acquisitions would be made in this key area. Existing public ownership (1/2 mile) would be protected with restrictions on grazing and spot mineral withdrawals. BLM actions would be inconsequential, but, the condition of this key area would continue to decline.

Mill Creek:

The consequences of this land-use management alternative are identical to the Administrative Adjustment Alternative.

North Fork Trinity River:

BLM would retain administration of this one mile key area. Restrictions on vehicle use and mineral material disposals would enhance the long-term condition of this segment of the stream.

Reading Creek:

The consequences of this land-use management alternative are identical to the Administrative Adjustment Alternative.

Rush Creek:

The consequences of this land-use management alternative are identical to the Administrative Adjustment Alternative.

Sacramento River:

The consequences of this land-use management alternative are identical to the Enhancement of Natural and Cultural Values Alternative.

Shasta River:

The consequences of this land-use management alternative are identical to the Administrative Adjustment Alternative.

Trinity River:

No additional stream mileage would be acquired by BLM under this alternative. The existing nineteen miles of public ownership would be maintained in current conditions through restrictions on mineral material disposals and vehicle usage. All developed public facilities would not be open to mineral location, however, the majority of the public ownership within this key area would be open to mineral entry. The trend in the condition of habitat would be downward due to continued private land development, no increase in public owner-

ship, and limits on habitat improvement due to mineral and recreational development and uses on public land.

Impacts To Archaeological Resources

Overall impacts to archaeological resources potentially would be greater under this land-use management alternative than any other, although the exact balance is difficult to define. Damage to sites would tend to result indirectly due to the development-oriented focus where there would be increased access and the potential for looting, vandalism, and off-road vehicle damage. Mining activities would no doubt increase under this alternative, leading to site damage, especially during assessment work. Dozens and perhaps a hundred or more sites might be affected at some level from these combined activities.

The proposed acquisitions under this alternative, while largely for forestry and recreation uses, would actually serve in other ways to benefit the protection and conservation of scores of important archaeological sites, including the historic townsites of Helena, Deadwood and Forks of Butte as well as important prehistoric villages along the Sacramento and Klamath rivers. Bearing in mind the problems of access and mining stated above, most actions would be covered under archaeological protection laws serving to safeguard most sites from direct impacts. Research and interpretation opportunities would be increased in these areas. Acquisitions may bring somewhere in the vicinity of 150 to 350 archaeological and historical sites into BLM hands, up to 25% of possible National Register quality.

Disposal of public lands, impacts of which have been discussed in the previous alternatives, could lead to the transfer of around 50 to 275 sites from the Federal domain, over 90% of which are probably not of National Register quality. Several transfers could potentially be beneficial, as with the transfer of lands to the State Park System (Shasta State Historic Park and Lake Oroville State Recreation Area) and National Park Service (Clear Creek), where several dozen or more archaeological sites might be involved. Importantly, this land-use management alternative does not provide for the special management focus of very sensitive archaeological zones through the ACEC process. In these areas discussed under other land-use management alternatives, archaeological site protection and interpretation/research would be encouraged and enhanced. Impacts to sites from habitat improvement projects, as at Horseshoe Ranch and within the Yolla Bolly area, may result from those coordinated actions where sufficient survey and site evaluations are not fully conducted to safeguard all sites, especially lithic scatters.

Impacts To Deer Winter Range

There would not be any impacts, adverse or beneficial under this land-use management alternative for the three deer herd winter ranges.

Impacts To Scenic Quality

Apart from a Visual Resource Management Class III prescription for the Trinity River corridor, no other prescriptions would be applied to the public lands. Scenic quality would be maintained temporarily within 1/4 mile of streams found eligible for inclusion in the National Wild and Scenic Rivers System where scenic quality was an Outstandingly Remarkable Value. As land-uses which contrasted with the existing landscape character occurred, scenic quality would be degraded. Transfer of public lands and implementation of BLM approved actions would have a minor additional consequence to the general degradation of scenic quality adjoining the populated areas of the Redding Resource Area. The fragmented public land ownership pattern and the actions of others would lead to the visible alterations of viewsheds adjoining Redding and, to a lesser degree, Weaverville. BLM actions may hasten this degradation.

Impacts To Slender Orcutt Grass

The orcutt populations and habitat evaluated within this analysis are within the Sacramento River Management Area. Impacts to slender orcutt grass would be identical to the Enhancement of Natural and Cultural Values Alternative. Even with protective covenants, the trend for the species would continue downward due to the actions of others. Therefore, the actions of BLM would have minimal beneficial consequences for Orcuttia tenuis when viewed cumulatively.

Impacts To Spotted Owl

Coupled with other Federal, state and private actions, the cumulative impact of this land-use management alternative would be insignificant to the Resource Area spotted owl population. One of the 173 owl pairs located within the Resource Area's Designated Conservation Areas (DCA) would have a greater chance at breeding successfully, although individual owl movement into and from the DCAs may be slightly impeded. Of the 395,000 to 495,000 acres of habitat outside DCAs within the

Resource Area 4,079 acres of habitat (superior, suitable and marginal) within the BLM key areas would be moderately degraded, and 2,007 acres would be protected through Wilderness management and Owl Habitat Area designation. All actions that would adversely affect the spotted owl (including habitat) would require consultation with the US Fish and Wildlife Service. A summary of Key Area impacts follow:

Crater Creek:

This area would be designated as an Owl Habitat Area (OHA) and transferred to the U.S. Forest Service to be managed in accord with their Conservation Area that encompasses the area. Comprehensive Federal management of the OHA and Conservation Area would likely be beneficial to the single pair of spotted owls located within the Designated Conservation Area.

Eastman Gulch:

This area would remain under BLM administration and available private lands adjoining the area would be acquired. Approximately 549 acres of suitable habitat within this area would be protected with the designation of an Owl Habitat Area, and the remaining habitat (25 acres of superior, 219 acres of suitable and 22 acres of marginal) would be available for timber harvest. Timber harvest activities outside the OHA would significantly alter habitat conditions, pending compliance with the Endangered Species Act (ESA). The single spotted owl pair located within the area would likely have greater breeding success with the habitat protection afforded OHA designation.

Quartz Hill:

This area would be retained by BLM and available private lands would be acquired to facilitate comprehensive management of the area. Multiple-use management would be emphasized (including intensive timber harvest). Timber harvest activities would likely significantly alter habitat conditions, pending compliance with the Endangered Species Act (ESA). The single spotted owl would likely be displaced from the area due to the impacts that past timber harvesting has had upon the amount of habitat located on BLM and private lands.

Rich Gulch:

This area would be retained by BLM and available private lands would be acquired to facilitate comprehensive management of the area. Multiple-use management (including intensive timber harvest) would likely degrade the presently 1,199 acres of suitable and 593 acres of marginal habitat, pending compliance with the ESA. Because this area contains only a limited amount of contiguous habitat that could be degraded through timber harvesting, the single spotted owl would likely be unsuccessful in mating and reproducing.

Scott Valley Block:

Most of this area would be retained in BLM administration, and available private lands adjacent to BLM lands would be acquired. Multiple-use management (including intensive timber harvest) would likely degrade habitat conditions, pending compliance with the ESA. Although these noncontiguous parcels would be under Federal jurisdiction, timber harvest regimes would not be significantly different from those within the No Action Alternative to improve habitat continuity and individual owl movement between DCAs may be impeded. Limited amounts of BLM habitat coupled with intensive harvest regimes would likely displace the two BLM spotted owl pairs.

Tunnel Ridge:

This area would be transferred to the U.S. Forest Service to be managed as Wilderness. Comprehensive management of this area would be a beneficial action. The single spotted owl within the key area would likely mate and be reproductive due to the abundance of habitat creating a suitable home range.

Willow Creek:

This area would be transferred to the U.S. Forest Service to be managed in accord with their Habitat Conservation Area. The six pairs of spotted owls located within the HCA would not be impacted.

Impacts To Waterfowl/Wetland Habitat

Impacts under this land-use management alternative for wetlands and waterfowl habitat within the Shasta Valley and Shasta Grass Lake would be the same as for the No Action Alternative, since these lands would remain in private ownership.

Impacts for wetlands and waterfowl habitat within the Sacramento River Management Area would be the same as the Enhancement of Natural and Cultural Values Alternative.

PROPOSED ACTION ALTERNATIVE

Impacts to Anadromous Salmonid Habitat

The consequences of this land-use management alternative within the entire Redding Resource Area are identical to those described in the Resource Use With Natural Values Consideration Alternative for every key area analyzed for anadromous salmonid habitat. A total of 132.5 miles of key habitat would be administered by BLM improving the long term production of anadromous species.

The beneficial consequences of BLM approved actions would be imperceptible within the Klamath and Shasta river systems incorporating any below key area. The relative lack of BLM administered habitat and the actions of others when viewed cumulatively would constrain BLM opportunities to improve the overall quality of these anadromous fisheries. Within the Sacramento River BLM actions, when viewed in concert with the planned actions of others, would have a minor stabilizing impact on the anadromous fisheries mainly due to the enhancement of Clear Creek. Protection of key habitat in the Trinity River system would complement the overall effort to restore the anadromous fisheries.

Impacts To Archaeological Resources

The most positive effect within this land-use management alternative would be the acquisition of significant archaeological sites, including complex prehistoric villages, in the Shasta Valley and along the Sacramento and Klamath rivers. Important historical sites would be acquired in Deadwood/French Gulch, along Butte and Clear creeks, and along the Trinity River including portions of the old mining communities of Deadwood, Horsetown, Helena, and Forks of Butte. Significant rockshelter sites and Indian camps related to Ishi and his group, the Yahi Yana, would come into Federal hands with acquisitions in Deer and Battle creeks. Sites acquired along these two drainages would probably exceed 50. Total acquisitions could result in the transfer of possibly 250-1000 sites to BLM.

On the negative side in the exchange or disposal process, BLM would lose management authority over approximately 150-700 sites, mostly (around 80-90%) non-National Register quality locations. These sites would potentially be subjected to increased impacts where less oversight and protective regulations would apply, as in development and from looting and vandalism. This is most likely in the areas around Redding, Weaverville and Oroville. Transfer of land to other Federal and state agencies may in some cases expand site protection through increased monitoring and other positive management actions. This would include parcels around Shasta State Historic Park, along Mill Creek, the Cedar Gulch and Central Valley Indian cemeteries, and possibly the Lake Oroville State Recreation Area. (This holds true in all land-use management alternatives).

Another positive aspect of this land-use management alternative is the ACEC designations at Swasey Drive, Sacramento River, Deer Creek and Butte Creek where archaeological resources are important. Through such designation these resources will be given special attention and protection.

Acquisitions in the Horseshoe Ranch area could lead to negative impacts to archaeological resources through brush conversion without a coordinated plan following inventory. In some areas, as along the Trinity, Sacramento and Klamath rivers, in Deer Creek Canyon, and in the Shasta Valley, acquisition could lead to looting and vehicle damage and other impacts without close monitoring and careful attention in the local management. Some of these areas are now in essence closed to the public providing a protective net of sorts. This, however, limits the archaeological resources' research and interpretive/conservation possibilities.

Retention of Quartz Hill under a cooperative management agreement and transfer of Clear Creek to a qualified conservation organization under R&PP , would have positive impacts to approximately 15 sites.

Impacts resulting from locatable mineral activities, and oil, gas and geothermal exploration, leasing and development, despite regulations, would have negative impacts on archaeological resources, especially historic sites along the principal drainages. The level of these impacts is very difficult to assess, probably including dozens of sites of varying levels of significance over the life of the RMP. The impacts would probably vary little by land-use management alternative with most impacts resulting from locatable mineral activities since most oil, gas and geothermal operations can be arranged to avoid site impacts.

Impacts To Deer Winter Range

Impacts to the three deer winter ranges and the deer populations would be the same as those discussed within the Enhancement of Natural and Cultural Values alternative.

Impacts To Scenic Quality

Scenic quality would be maintained within the Trinity River corridor, the Sacramento River Area, along both the middle and upper Klamath River segments, the Shasta River canyon, Horseshoe Ranch, the viewsheds of the Whiskeytown Unit of the National Recreation Area and Shasta Dam Scenic Drive, and the Forks of Butte Creek Recreation Area. These areas would be managed under a Visual Resource Management Class II prescription. Public lands identified for transfer to other agencies in the Yolla Bolly, Klamath and Ishi management areas may or may not retain their scenic qualities, depending upon the uses the other agencies made of them. The public lands identified for transfer surrounding the City of Redding would probably be developed eventually for uses which would create contrasts to their existing landscapes, resulting in degradation of scenic quality. The scenic quality of public lands identified for exchange throughout the Resource Area would probably be degraded over the long term as these lands were developed by their new owners. Because the private land acquisition program is focused in those areas where Visual Resource Management Class II prescriptions would be applied, over the long term scenic quality would be maintained or protected over the more significant scenic resources where public interest and sensitivity is greatest. Therefore the cumulative effect would be an overall enhancement of scenic quality under this alternative.

Impacts To Slender Orcutt Grass

This land-use management alternative would have beneficial impacts by improving the quality and quantity of this species by providing better protection with the ACEC designations, and by assuring the long term survival of this species through acquisition or cooperative management of 3 sites, involving 106.2 acres of suitable habitat presently located on private lands. Overall, this alternative would ensure the perpetuation of the species principally due to the actions of BLM and their cooperators. The actions of others would, however, degrade any remaining habitat at privately owned sites outside the Sacramento River Management Area.

Impacts To Spotted Owl

Coupled with other Federal, state, and private actions, the cumulative impact of this land-use management alternative would be insignificant to the Resource Area spotted owl population. One of the 173 spotted owl pairs located within the Resource Areas' Designated Conservation Areas would have a greater chance at breeding successfully, although individual owl movement into and from the Designated Conservation Areas would be slightly impeded. Of the 395,000 to 495,000 acres of spotted owl habitat located outside Designated Conservation Areas, but within the Redding Resource Area boundary, 4,079 acres of habitat (superior, suitable and marginal) within the BLM key areas would be slightly degraded, and 2,007 acres would be protected through Wilderness management, Owl Habitat Area designation and moderately restrictive timber harvesting. All actions that would adversely affect the spotted owl (including habitat) would require consultation with the U.S. Fish and Wildlife Service. A summary of Key Area impacts follow:

Crater Creek:

This area would be designated as an Owl Habitat Area (OHA) and transferred to the U.S. Forest Service to be managed in accord with their Conservation Area that encompasses the area. Comprehensive Federal management of the OHA and Conservation Area would likely be beneficial to the single pair of spotted owls located within the DCA.

Eastman Gulch:

This area would remain in BLM administration and available private lands adjoining the area would be acquired. Approximately 549 acres of suitable habitat within this area would be protected with the designation of an Owl Habitat Area, and the remaining habitat (25 acres of superior, 219 acres of suitable and 22 acres of marginal) would be available for multiple use management (including timber harvest). Timber harvest activities outside the OHA may alter habitat conditions, pending compliance with the Endangered Species Act (ESA). The single spotted owl pair would likely have greater success at breeding with the designation of an OHA and acquisition of adjoining private lands.

Quartz Hill:

This area would be retained by BLM and a cooperative management agreement would be sought in order to manage this area as described within the Enhancement of Natural and Cultural Values Alternative. It would be reasonable to expect that the 15 acres of currently marginal habitat could reach suitable conditions within 30 years through intensive management bringing the total of suitable habitat to 185 acres. The spotted owl or

owls currently remain in this area but no record of reproduction has been recorded since 1981.

Rich Gulch:

This area would be retained by BLM and available private lands would be acquired to facilitate comprehensive management of the area. Multiple-use management (including timber harvest) would likely alter the presently 1,199 acres of suitable and 593 acres of marginal habitat, pending compliance with the ESA. Because this area contains only a limited amount of contiguous habitat which could be degraded through timber harvesting, the single spotted owl would likely be unsuccessful in mating and reproducing.

Scott Valley Block:

This area would be available for exchange; while in the interim, multiple-use management subject to compliance with the ESA would be emphasized. While under BLM jurisdiction, timber harvests would likely alter the 24 acres of superior, 1,793 acres of suitable and 19 acres of marginal habitat. Alteration of spotted owl habitat resulting from timber sales or other BLM actions would probably result in the loss of production from these owls although they would probably remain in their current activity center. If these noncontiguous parcels were transferred to the private sector, comprehensive Federal management of the area would be foregone and individual owl movement between Designated Conservation Areas may be slightly impeded through subsequent piecemeal timber harvests. These parcels may provide significant continuity to substantial habitat located to the east, west and south.

Tunnel Ridge:

This area, designated as Wilderness, would be managed by BLM in accord with the U.S. Forest Service. No degradation to the 251 acres of superior, 573 acres of suitable and 314 acres of marginal habitat would be expected. The single spotted owl in the area would likely mate and reproduce due to the abundance of habitat that creates a suitable home range.

Willow Creek:

This area would be transferred to the U.S. Forest Service to be managed in accord with their Conservation Area. The six pairs of spotted owls within the DCA would not be impacted.

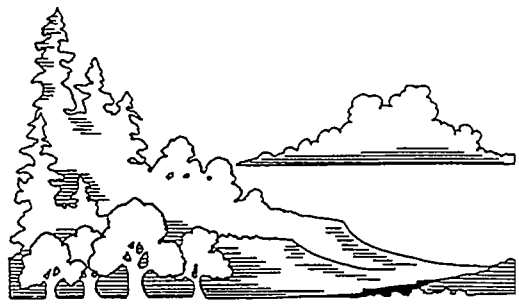
Impacts To Waterfowl/Wetland Habitat

Klamath Management Area

This land-use management alternative has identified, through exchange or purchase from willing sellers, the acquisition of approximately 17,480 acres of wetlands in the Shasta Valley. Management actions for this alternative include: long term protection and enhancement of native wetlands, enhancement of native waterfowl and upland wildlife habitat. If these management actions are implemented, there could be a 15 to 20 percent increase in waterfowl production. The 17,480 acres would be protected from future draining or development.

Sacramento River Management Area

Under this alternative, several parcels of private land have been identified for acquisition in the Sacramento River Management Area that either contain wetlands or have potential for development of new wetlands. Successful acquisition of these lands would improve habitat conditions on many of these areas by reducing competitive uses, such as grazing, and other agricultural uses. There would also be an opportunity for development of new wetlands on several parcels. Waterfowl wintering areas would be increased by two to three hundred acres, resulting in a corresponding increase in wintering waterfowl population of 60 to 80 percent greater than the No Action Alternative. Waterfowl production would possibly increase slightly.



CHAPTER 5

CONSULTATION AND COORDINATION

INTRODUCTION

The Redding Resource Management Plan (RMP) is comprehensive and prescribes land use allocations and direction over a vast array of BLM administered lands and resources. As such, public involvement was integral in the development of the RMP. This chapter describes the public participation procedures utilized by BLM in the development of the Final RMP and Environmental Impact Statement (FEIS), and discloses comments made on the Draft RMP (DEIS).

The chapter is divided into four sections: 1) Overview of Public Participation; 2) Summary of Comments; 3) Comments of Particular Interest; and 4) Comments and Responses.

OVERVIEW OF PUBLIC PARTICIPATION

BLM has made a diligent effort to involve the public in the development of this FEIS as directed by NEPA (40 CFR 1506.6). Public involvement was initiated with the issuance of the Notice of Intent published in the Federal Register on December 15, 1988 and February 3, 1989. Five public meetings were held in February of 1989 to help formulate the issues guiding the development of the Draft RMP. More detailed information on the process and results is available within Chapter 1 of this FEIS.

Following the initial issue scoping, BLM met or talked by phone to numerous agencies, organizations and individuals in the development of the land-use management alternatives. In addition to these contacts, BLM reviewed a variety of Federal, state, and local plans in order to coordinate planning efforts and ensure consistency as directed by Section 202 (c)(9) of the Federal Land Policy and Management Act of 1976. A listing of agencies, organizations and individuals consulted and plans reviewed was provided within the DEIS and is available at the Redding office.

The public review and comment period for the DEIS was initiated with the issuance of a Notice of Availability published in the Federal Register on February 13, 1991. A total of approximately 1,000 copies of the DEIS were circulated through a large initial mailing, individual-copy mailings and over-the-counter distributions. The mailing list was composed of those who had responded during the initial scoping meetings, those indicating an interest in BLM land management planning, and various local, state and Federal agencies having jurisdiction or interest in the resources involved. A partial listing of individuals, organizations and agencies receiving copies of the DEIS was provided within the DEIS and is available at the Redding office.

Subsequent advisory releases coupled with newspaper, radio and television coverage advertised the availability of the DEIS and invited individuals to public meetings. Public meetings were conducted in Chico, Weaverville, Redding, Red Bluff and Yreka during the last week of May, 1991 with approximately 400 people attending the five meetings. The main objective of the meetings was to obtain comments on the DEIS, although staff was available to answer questions pertaining to the document. Those who attended were divided into smaller groups during the larger meetings in order to provide ample time for all individuals to voice their concerns.

Furthermore, BLM gave presentations on the DEIS to the Trinity, Siskiyou, Shasta, Tehama and Butte County Board of Supervisors, as well as the Redding City Council during the months of June and July of 1991. The main objective of these presentations was to fully inform the local elected officials of the DEIS implications, and call for comments on the plan.

The closing date for public comments as announced within the Notice of Availability was June 28, 1991. Comments postmarked by that date are represented within this chapter. Comments postmarked after that date were processed separately and are included within this chapter only if sufficient notice was given to BLM from the respondent that the comments would be tardy.

SUMMARY OF COMMENTS

BLM accepted comment on the DEIS through individual letters, personal contacts, petitions, telephone conversations and public meetings. Comments were considered without regard to the respondent's location, occupation, or lifestyle. Each comment is valuable whether "substantive" or not; opinions, feelings, suggestions, and observations were all carefully considered. Use of public comments is not a vote-counting process. Each comment was weighed on its own merit against legal, technical and resource capability considerations. Using professional judgement, the Interdisciplinary Team assessed and considered all of the public comments, individually and collectively.

BLM received a total of 203 letters containing over 220 unique comments prior to the June 28, 1991 closing date, and nearly 30 letters after the closing date. Each letter was reviewed for comments that addressed the adequacy of our analysis, issues, alternatives, or process; or contained an informed opinion specific to the document. Furthermore, BLM received over 94 unique comments during the five public meetings or through personal contacts. In all, 314 distinct comments were recorded verbatim, categorized, and later summarized for evaluation.

BLM grouped or combined similar comments in order to reduce repetitive responses. These comment types are presented within the FEIS using an archetypal comment that fully embodies the substance raised by a number of commentors (individuals). To assist the reader as to the location of specific comments, two tables are provided within this chapter. Table 5-1 lists all individuals, organizations and agencies providing comment on the DEIS and the comment number(s) referred to in their response. Table 5-2 directs the reader to individual comment number(s) germane to several topics of interest.

COMMENTS OF PARTICULAR INTEREST

Although all comments on the DEIS were valuable, particular comments prompted significant changes to the selected alternative(s), or identified substantial controversy. The following section highlights these comments and briefly explains the rationale used by BLM in modifying the various alternatives or maintaining BLM's original position identified within the DEIS. Comments of particular interest referred to Grass Valley Creek consideration, scattered public land disposals, Shasta Valley acquisitions, and Wild and Scenic River eligibility.

GRASS VALLEY CREEK CONSIDERATION

The DEIS's lack of consideration for management of the Grass Valley Creek watershed within Trinity County drew substantial comment. The 22,500 (re: p.4.4 - Table 4-1) acre watershed has been the topic of considerable interest among agencies, organizations and individuals at the Federal, state and local level for many years. Approximately 17,000 acres of the watershed is underlain with decomposed granitic soils that contribute to a massive sediment problem within Grass Valley Creek and the Trinity River. Each year, approximately 170,000 cubic yards of sediment is discharged into Grass Valley Creek, with approximately 108,000 cubic yards intercepted by the U.S. Bureau of Reclamation's Buckhorn Dam and the Hamilton pools. The sediment that circumvents the catchments is deposited for up to 30 miles downstream from Grass Valley Creek's confluence with the Trinity River, thereby degrading spawning gravels and other fishery habitat.

Within the DEIS, BLM did not consider acquisition of this area due to the current limited presence of BLM land within the area (540 acres), sensitivity to the Trinity County tax base, and unwillingness to dispose of valuable public lands within Trinity County in order to acquire an enormous liability that may be adequately remedied under state and Federal regulation. Subsequently, the Trinity River Task Force directed their Technical Coordinating Committee to prepare a feasibility report concerning options available to substantially reduce sediment discharge from Grass Valley Creek into the Trinity River. It became apparent through this feasibility report that the sedimentation problem would severely limit BLM's goal to enhance the anadromous fisheries of the Trinity River (as stated in the Draft RMP).

Comments received on BLM's DEIS reflected the concern over the Trinity River fishery and Grass Valley Creek sediment problem. A total of 11 comments were received that prompted BLM to consider the acquisition of Grass Valley Creek within at least one alternative, if not the proposed action alternative. No respondents indicated an opposition to the acquisition of lands within the Grass Valley Creek watershed. Furthermore, the Technical Coordinating Committee of the Trinity River Task Force concluded within their feasibility report that acquisition of the Grass Valley Creek watershed and subsequent rehabilitation was a viable option to consider in reducing sediment loads into the Trinity River.

Table 5-1

Agencies, Organizations, and Individuals Providing Comments on the Draft Resource Management Plan

NAME OF RESPONDER	COMMENTS NUMBER(S)
Federal Agencies	
USDI Bureau of Mines	151, 194
USDI Fish and Wildlife Service	70, 106, 323, 418, 419, 420
USDI National Park Service	*
US Environmental Protection Agency	10, 109, 147, 414
State Agencies	
Calif. Department of Fish and Game	11, 87, 97, 111-116, 138, 139, 301, 342, 358, 400-404, 416
Calif. Department of Water Resources	11, 55, 117, 140, 343, 405
Calif. State Lands Commission	110
County Government	
Butte County Mosquito Abatement District	15
Sacramento County Board of Supervisors	13
Shasta County Board of Supervisors	24
Shasta County Mosquito Abatement District	15
Shasta County Office of Education	12
Siskiyou County Administrator	22, 88-90, 118-121, 345, 346, 365
Siskiyou County Farm Bureau	**
Tehama County Resource Conservation District	25, 26, 103, 104
Trinity County Board of Supervisors	9, 22, 106, 124, 125, 132, 300, 357, 413
Trinity County Department of Transportation & Planning	22, 106, 124, 125, 356, 357, 405, 413
Trinity County Planning Commission	*
Trinity County Resource Conservation District	106, 300
City Government	
City of Anderson	*
City of Etna	**
City of Montague	**
City of Redding	12, 24, 200, 201, 203-208, 213, 219, 221, 222, 225, 228-231
Town of Fort Jones	**
Organizations and Industry	
American Sport Fisheries Enhancement	12
Ancient Forest Defense Fund	303
Butte Creek Trail Council	14
Calif. Association of 4WD	174
Calif. Wilderness Coalition	14, 91, 100, 122, 408
Chico Area Flyfishers	14
Citizens for Better Forestry	14, 19, 51, 106, 107, 300
Calif. Native Plant Society	12, 19, 23
Defenders of Wildlife	14, 13, 355
Ecology Center of So. California	**
Environmental Advocates	7, 13, 14, 23, 41, 51, 57, 59, 106, 107, 149, 150, 152, 180, 410

NAME OF RESPONDER	COMMENTS NUMBER(S)
Organizations and Industry	
Environmental Defense Fund	106
Fort Baker Ranch	**
Friends of the River	6, 7, 14, 23, 27, 33, 34, 36, 38, 41, 51, 57-59, 62-65, 106, 143-146, 170-172, 355, 412
Horsetown/Clear Creek Nature Preserve	12
Kingfisher Float Trips	13, 14, 60
Klamath Forest Alliance	7, 13, 19, 20, 33-37, 41, 51, 106
Klamath River Miners	132, 135
Marble Mountain Audobon Society	7, 13, 19, 20, 33-37, 41, 51, 100, 106
Natural Resources Defense Council	106
Noyes Valley Cattle Company	348
Pacific Gas and Electric Company	*
Parks Preserve Foundation	2, 69, 175, 353, 410, 411, 416
Quartz Valley Reservation	7, 13, 19, 20, 33-37, 41, 51, 100, 106
Redding/RHF Housing Inc.	12
Safe Alternatives for Forest Environments	300
Sacramento River Preservation Trust	12, 13, 22
Santa Monica Bay Audobon Society	13
Shasta Historical Society	12
Shasta's Miners	78, 79
Shasta-Trinity Miners Committee	130-137
Sierra Club	1-4, 12, 14, 56, 80, 92-94, 100, 123, 304-307, 349-353, 409, 410
Sierra Mac River Trips	14
Siskiyou County Cattlemans Association	22, 89, 90, 119, 120, 345-347, 406
Siskiyou County Sportsmen Assoc.	38
Siskiyou County Hound & Sportsman	38
Sportsmen's Council of No. California	**
Tehama Fly Fishers	13
The Activist Monthly	14
The Wilderness Society	7, 13, 14, 23, 35, 37, 38, 41, 51, 52, 57, 58, 66, 106, 126, 145, 148, 173, 180-189, 308-311, 313, 314, 355, 415, 523-526
Valley Veterinary Clinic	**
Wintu Chapter Audobon Society	12
Yolo Audobon Society	14
Schools	
Enterprise High School	12
Igo-Ono-Platina School	12
Individuals	
James Aadland	381
Tom Alford	166, 256, 388, 389
Jeanette Alosi	14
David Altmann	13
Doctor Asher	12, 382
Terry Baker	14
Charles Baracco	124, 320, 322
Mary Belkin	12
Carole Berry	12

NAME OF RESPONDER	COMMENTS NUMBER(S)
Individuals	
David Bish	27
Bruce Blake	14
Joe Blakemore	387
Craig Blomberg	13
Steven Bollock	14
Wolfgang Bolo	*
James Brobeck	13, 52
Craig Brown	7, 13, 19, 20, 33-37, 41, 51, 100, 106
W. Brown	**
Dorothy Brownold	13
Charles Brumfield	14
Lee Bunnell	18, 354
June Burg	385
Audie Butcher	377
Kathy Callan	195
Tom Camara	14
Gloria Clark	12
Gene Clark	12
Walt Cole	12
Roger Cole	14, 19, 41, 52, 95, 141, 142, 411
John Collins	14
Walter Cook	14, 504, 508, 509
R.A. Copland	12
Michelle Cram	382
Julie Cunningham	13
Tom Darnell	12
Karla Dayton	12
Todd Dayton	12
Lang Dayton	12, 13, 86, 341
Chuck DeJournette	11, 14, 259, 422
Douglas Denton	12, 17, 18
Ronald Dickenson	106
Robert Doelker	75
L. Dubesky	**
Ann Duchi	12
Anji Duchi	22
Dean duVerne	**
Frieda DeBernardi	14
Chet Eastlik	**
Don Elder	7, 13, 19, 20, 33-37, 41, 51, 100, 106
Carole Elton	**
Richard Ely	14
Tom Engstrom	22, 302
Andy Faletti	13
Mary Feathergill	7, 13, 19, 20, 33-37, 41, 51, 100, 106
Paul Feldhaus	14
Lawrence Fisher	13, 52, 54
Steve Flowers	14
Patty Fox	14
Willard Freeman	**

NAME OF RESPONDER	COMMENTS NUMBER(S)
Individuals	
Stanley Garvey	13
Les Gerton	14
Jay Gibson	13
Margery Girfen	12
Vernon Glade	8
Sam Goldberg	14
Rowena Goodner	12
Gail Hansen, M.D.	14
Ken Hanson	**
Edwin Hart	39, 40
Karyn Helfrich	14
John Helin	14
Herman Hendryx	**
Bryan Hill	13, 80, 86, 98, 99, 139, 191, 192, 342, 417
T.R. Jarrett	363
Michael Jones	13, 14
Robert Jordan	14
Dianne Keller	7, 13, 19, 20, 33-37, 41, 51, 100, 106
Bob Kelso	13
G.A. Kennebeck	13
William Kenny	14
Jan Kerrigan	7, 13, 19, 20, 33-37, 41, 51, 100, 106
John Kidwell	14
Teresa Kludt	14
Frank Kosko	12
Dorothy Knapp	7, 13, 19, 20, 33-37, 41, 51, 100, 106
Robbin Lacy	7, 13, 19, 20, 33-37, 41, 51, 100, 106
Wanda Lamar	12
Roy Lancaster	76
Mary Jane Landis	12
Jack Lawson	13
Joan Lee	14
Thomas Leeman	13, 14
W.G. Livingston	14
Floyd Loken	**
E.J. Louie	**
Timothy Louie	**
Coral Love	14
Frances Luby	12
Jon Luvaas	14
Bernard Mallot	**
Ace Marion	**
John Mason	14
Diane McConigal	7, 13, 19, 20, 33-37, 41, 51, 100, 106
Hugh McGuigan	379
Marion McMahon	23, 84, 520
Charles Meineshager	18
Bob Miller	88, 89, 90, 119, 365, 406, 407

NAME OF RESPONDER	COMMENTS NUMBER(S)
Individuals	
Michele Miller	52
Jim Miller	421
Jean Mills	39
Cindy Montague	14
Nancy Morton	54
Scott Murphy	52, 197
Michael Murphy	13, 80-83, 360
Douglas MacInnis	16
James McGee	14
John McMahon	12, 84
Reverend McRae	14
Dusty Nash	**
S. Nelson	**
Robert Neilsen	**
Margaret Neunan	14
Jesse Noell	105, 109, 117, 140
David Nopel	14, 52, 54
John Olander	**
John Ost	14, 73
Diana Pace	7, 13, 19, 20, 33-37, 41, 51, 100, 106
Edith Parke	14
Ray Patton	190
George Paxton	54
Stephanie Pearson	12
Mary Ann Pella-Donnelly	14
Ed Petersen	12
Don Phelps	38
Nancy Poirier	12, 53
Kathleen Presley	14
Georgina Pugh	12
Trish Puterbaugh	13, 52
Callie Quint	12
Anette Rardin	12, 24, 27-28
William Reavley	14
Gary Reece	13
Bradley Richards	14
Max Richman	12, 13, 85
Marlys Richman	386
Jerry Richmond	*
Majorie Riley	14
Jim Rotta	378
Lynn Ryan	14, 19, 20
Norman Sauer	14
Stephen Sayre	14
Evelyn Schloezer	106
Cathy Scott	12, 16
Robert Sell	165, 166, 256
Edward Sherman	312
Daniel Silver	13

NAME OF RESPONDER	COMMENT NUMBER(S)
Individuals	
Michael Smith	14
Debra Smith	380, 510
Myrna Stafford	7, 13, 19, 20, 33-37, 41, 51, 100, 106
Robert Stanfield	**
Pattie Stock	7, 13, 19, 20, 33-37, 41, 51, 100, 106
David Stoll	13
Doree Stovall	13
George Strauss	13
Tomas Suk	13,14
John Swanson	*
Alice Thomas	156, 359
Chris Thompsen	**
Sandra Tinchner	12
Martha Tinkler	*
Mayo Torgersen	255, 508
Toni Triest	14
John Twitchell	13
Susan Walden	12
Bert Walsh	12
Madge Walsh	12, 193
Michelle Waybright	12
Susan Weale	13, 17, 18
Loraine Webb	14
Donald Webster	13
Denny Wells	7, 13, 19, 20, 33-37, 41, 51, 100, 106
Muriel Wiessberg	14
Dennis Williams	12
Lyle Williams	521
Vernon Withuhn	14
Charles Withuhn	14
Cathy Withuhn	14
Kevin Wolf	14
Nina Wolf	7, 13, 19, 20, 33-37, 41, 51, 100, 106
Art Wynant	12
Richard Yoder	340
Rita Zenkus	**
Unnamed Responders From Public Meetings	
	12, 17, 18, 22, 24, 27, 71-73, 77, 100, 134, 153, 155, 157-163, 174, 176, 177, 179, 195, 196, 198, 199, 250-254, 256, 257, 366-372, 374, 376, 377, 384, 390-399, 501-506, 527, 528

Notes: Single asterisk (*) indicates that a timely letter was received, but no specific comment was provided requiring a response. Double asterisk (**) indicates that an untimely letter was received, but comments were similar to those already received.

Table 5-2

Comments Reflecting Particular Topics

TOPIC	COMMENT NUMBER(S) REFLECTING TOPIC
ACEC's	12, 23, 34, 130, 151, 180, 393, 402, 412, 524
Biodiversity	100, 320
Clear Creek	11-14, 17, 22, 28, 41, 53, 63, 74, 117, 144, 156, 166, 177, 179, 195, 198, 200, 203, 205, 228-232, 256, 257, 300, 354, 358, 367, 374, 377, 380-382, 385, 387-389, 394, 398, 405, 510
Cultural Resources	2, 12, 14, 34, 37, 38, 41, 56, 119, 120, 123, 134, 160, 180, 182-184, 186, 188, 190, 300, 308, 311, 363, 368, 380, 390, 528
Deer Winter Range	28, 36-38, 112, 115, 151, 182, 184-186, 340, 348, 365, 400, 403, 407, 416-418
Endangered Species	11, 38, 41, 81, 84, 92, 100, 106, 184, 190, 351, 408, 409
Erosion	1, 12, 25, 80, 91, 103, 106, 117, 125, 134, 136, 140, 203, 205, 207, 228, 232, 307, 422
Fisheries	12, 14, 20, 33-35, 53, 56, 57, 63, 73, 106, 134, 136, 138, 148, 183, 184, 205, 219, 225, 323, 324, 385, 388, 405, 413, 419, 420, 422, 525
Forestry	111, 113-115, 151, 203, 228, 300, 302, 307, 310-314, 404, 420
Gene Chappie/Shasta OHV	6, 27, 187, 201, 376, 379
Grass Valley Creek	105, 106, 117, 125, 371, 420
Grazing	13, 15, 19, 20, 23, 33, 36, 39, 60, 80, 81, 85, 86, 90, 91, 93, 95, 98, 99, 103, 109, 111, 113, 114, 119, 120, 122, 182, 188, 346, 365, 404, 411, 414, 420
Horseshoe Ranch	36, 88, 90, 100, 121, 182, 365, 407
Interlakes	1, 6, 24, 28, 179, 187, 200, 201, 206, 207, 219, 252
Jenny Creek	182
Klamath River	34, 35, 51, 58, 70, 73, 100, 134, 135, 143, 182, 324, 365, 406
Land Tenure	179, 410, 411
Mining	11, 12, 25, 37, 53, 63, 74, 109, 111, 113, 130-138, 140-153, 155-158, 166, 167, 183, 186, 189, 190, 219, 223, 225, 253-255, 320, 398, 411, 421

TOPIC	COMMENT NUMBER(S) REFLECTING TOPIC
Native American	2, 34, 37, 161, 163, 164, 182, 190
NEPA	6, 15, 41, 87, 112, 122, 150, 183, 188, 189, 194, 232, 314, 350, 523
Oak Woodlands	1, 23, 94, 97, 228, 523, 528
Off Highway Vehicles	1, 6, 27, 109, 207, 252, 356, 379, 390
Quartz Hill	37, 38, 151
Recreation	1, 6-14, 24, 28, 35, 37, 41, 54-56, 58, 62, 63, 69, 78, 100, 106, 111, 113, 120, 132, 134, 135, 141, 148, 149, 151, 155-158, 174, 176, 177, 179, 180, 184, 187-190, 192, 193, 196, 200, 204, 206, 207, 229, 230, 252, 254, 260, 303, 308, 313, 320, 324, 340, 341, 348, 349, 355, 360, 363, 366, 370, 376, 377, 379, 380, 382, 384, 391, 392, 395, 397, 398, 510
Riparian	11, 12, 15, 17, 19, 20, 23, 33, 34, 36, 41, 52, 74, 81, 109, 138, 148, 156, 183, 184, 193, 228, 314, 354, 385, 388, 402, 405, 406, 411-414, 418, 422, 523, 524
Sacramento River	7, 12-14, 23, 24, 27, 56, 64, 73, 82, 85, 100, 103, 104, 110, 148, 171-174, 179, 180, 192, 193, 200, 206, 213, 219, 229, 230, 350, 355, 366, 371, 380, 385, 392, 395-397, 405, 412, 414
Scott Valley	37, 38, 41, 151, 181, 191, 192, 348, 400, 401, 417
Shasta River	13, 14, 33, 34, 73, 100, 118, 143, 182, 402
Shasta Valley Wetlands	33, 39, 100, 105, 118-121, 182, 365
Spotted Owl	28, 37, 38, 87, 112, 151', 181, 182, 184, 313, 314, 401, 408, 409, 415
Tax Revenue	22, 40, 350, 359, 521
Trinity River	11, 51, 58, 70, 71, 100, 106, 117, 131-136, 138, 153, 161, 183, 185, 186, 320, 323, 324, 366, 413, 418-420, 526
Water Quality	33, 81, 105, 109, 117, 118, 140, 203, 207, 219, 300, 314, 525
Wetlands	12, 13, 15, 20, 33, 39, 85, 105, 109, 112, 118, 119, 151, 156, 182, 347, 351, 353, 365, 414, 523
Wild and Scenic Rivers	13, 14, 35, 51-53, 55-59, 62-66, 70-78, 122, 134, 143, 144, 151, 174, 189, 196, 198, 301, 313, 324, 343, 355, 374, 404, 411, 524, 529
Wildlife	11-13, 20, 33, 37-39, 41, 60, 80-82, 87, 90, 100, 111-113, 116, 121, 132, 151, 176, 180, 182, 184, 197, 203, 228, 231, 300, 304, 306, 313, 324, 342, 348, 354, 363, 365, 380, 385, 386, 404, 404, 408, 410, 413, 418
Yolla Bolly	3, 65, 84, 151f, 189, 191, 192, 342, 371, 509, 526

Finally, the Trinity County Board of Supervisors indicated that BLM should consider at least partial acquisition within this area as considered within a 1986 study conducted by BLM entitled Grass Valley Creek Exchange Study.

In view of the concern over this sensitive watershed, BLM has modified two land-use management alternatives to address acquisition and rehabilitation of the watershed. Two land-use management alternatives, including the proposed action, identify the watershed for acquisition with the ultimate objective of reducing the sediment discharge into the Trinity River via Grass Valley Creek. BLM would consider acquisition of available unimproved lands within the Grass Valley Creek watershed via purchase using appropriated funds or donation, contingent that funds also be included to manage the watershed as described within the various alternatives.

SCATTERED PUBLIC LAND DISPOSALS

BLM received considerable comment regarding the disposal of scattered BLM lands within a variety of management areas. The proposed acquisitions and disposals that were identified within the DEIS, were formulated to address the issue of land tenure which is described within Chapter 1. Some respondents were unclear as to which parcels of BLM land were identified as being available for exchange, others were concerned that public land disposals would occur without additional environmental review. Several respondents indicated that BLM should conduct full botanical and wildlife surveys prior to the disposal of lands, while many others felt that the DEIS did not adequately address the impacts of the proposed land disposals. In many cases, individuals and organizations opposed or supported particular land disposals and provided rationale for their opinions.

Within Scott Valley, one respondent indicated that public land disposals would negatively impact the tax base and three others felt that the plan did not adequately describe impacts to the County economy. Other respondents indicated that land disposals would reduce livestock grazing opportunities, deer populations, spotted owl habitat, and recreational opportunities and create private hunting clubs within the region. Two respondents felt that BLM should acquire lands within Scott Valley and Noyes Valley, while other respondents supported the disposal of lands within the area provided that site specific environmental assessments were written to address each disposal.

The DEIS also proposed the disposal of public lands located on Quartz Hill which drew considerable comment. Seventeen respondents indicated that Quartz Hill contained many ecological and cultural values that would be better protected under BLM administration with a cooperative agreement. Others were concerned with the impact that the disposal would have to the northern spotted owl. Two other respondents indicated that Quartz Hill should be retained, but did not provide a suggestion on how to manage the area.

In response to the concerns identified within the Scott Valley Management Area, BLM has modified the DEIS. An assessment to the economy of Siskiyou County through the various alternatives is included within Appendix H of the FEIS. The proposed action alternative has been modified and public lands on Quartz Hill would be retained if an agreement is developed within five years (from the Record of Decision) for the collaborative management of the area with a qualified organization. If BLM is unsuccessful in securing an acceptable cooperative agreement with a qualified organization for this area, public land would be available for disposal.

BLM maintains that public land exchanges within Scott Valley are in the public's best interest and are necessary to balance the tax base within Siskiyou County that could be impacted through land acquisitions within other important areas. Public lands within this region would only be exchanged following site specific environmental assessments and, in some cases, consultation with the U.S. Fish and Wildlife Service.

Proposed land disposals within the Yolla Bolly Management Area also drew substantial interest. Two respondents indicated that the area contains unique endemic plants that grow only on serpentine soils and should be protected. Other respondents felt that public land disposals did not complement the Department of Fish and Game's objectives for deer management within the area.

BLM maintains that public land disposals within this area are within the public's best interest. Land disposals within this area would not likely alter the quality and quantity of deer winter range and disposal is necessary to balance the Tehama County tax base that could be impacted through acquisition within the regionally important Sacramento River Management Area.

Finally, scattered public land disposals near west Redding drew substantial comment. Three respondents outright opposed the disposal of public lands within west

Redding and one respondent strongly encouraged the disposal of these lands. Most of the respondents that opposed disposal within this area, stated that the lands provided important recreational opportunities, or open space benefits. One respondent suggested that BLM should acquire lands adjoining west Redding and then transfer the entire privately owned area to the City of Redding as a park.

The City of Redding was quite concerned with the time period allotted for local government to evaluate recreational needs and apply for lease or patent of specific parcels under the Recreation and Public Purposes Act (R&PP). Furthermore, the City felt that the disposals may conflict with the General Plan and requested that additional R&PP sites be identified by BLM. Finally, the City requested BLM to be contacted prior to the disposal of any lands within the sphere of influence of Redding.

BLM maintains that the disposal of lands near west Redding is within the best interest of the public. Although localized open space opportunities and recreational uses are noteworthy, this situation is more properly a concern of local government. Local government will have 2 years to plan for, and identify, strategically located lands to be acquired under the Recreation and Public Purposes Act. The time period should be adequate as there has been over a 1 year time lag associated with release of the DEIS and FEIS. Furthermore, the City and other organizations have had opportunities for transfers of these public lands since at least 1973. Very little public land acreage has been transferred successfully near Redding in the last 20 years due to the lack of local demand and funding. Finally, disposal within this area is necessary in order to acquire regionally important areas in close proximity to Redding and to balance the local tax base.

SHASTA VALLEY ACQUISITIONS

The proposed acquisition of available, unimproved land within the Shasta Valley wetland area generated substantial interest. BLM received a total of 15 letters from individuals representing various groups supporting the proposed acquisition of native wetlands within Shasta Valley. Those who supported the proposal felt that the acquisitions would "protect the natural wetlands and restore them to full biological productivity". BLM received a total of six letters from individuals and organizations (including the Siskiyou County Administrator) opposing the acquisition of wetlands within Shasta Valley. Many of those who opposed the proposal felt that BLM acquisitions would negatively impact adjacent property values, reduce the tax base, harm the agricultural community, lower cattle production and depart from the custom and culture of Siskiyou County residents.

Various respondents were uncertain how acquisitions would occur and feared that condemnation would be used, while others indicated that non-native wetlands were present within the acquisition polygon. Three respondents indicated that the protection of wetlands within the area could be more efficiently accomplished through private partnerships under conservation easements, or Coordinated Resource Management Plans with memoranda of understanding or agreements. Finally, several respondents felt that the Federal government currently managed too much land within the County and that additional Federal acquisitions should not occur.

BLM also mailed individual letters to the 49 landowners holding land within, or adjacent to, the proposed acquisition area asking for comment on the proposal. The 20 responses that BLM received were mixed; five landowners were quite interested in the wetland concept and indicated that they might be willing to sell their land to BLM; three landowners were interested with the concept, but indicated that their land was not available for sale; and eleven landowners opposed the proposal. Many of these landowners provided BLM with information as to the types of soils and disposition of wetlands on their lands.

BLM recognizes the sensitivity of the proposal and has modified the proposed action within the Final Resource Management Plan accordingly. The acquisition area was substantially reduced under the proposed action and relocated based on the input provided by landowners within the area and other respondents. The original acquisition area totalling 21,000 acres was reduced to approximately 17,400 acres and directed towards more abundant wetland areas. A majority of this acquisition area is owned by six individuals or corporations with approximately 9,300 acres currently available to BLM from a willing seller.

Furthermore, BLM conducted an assessment to the County economy resulting through plan implementation (Appendix H). Because BLM land acquisition within the County would be by exchange from willing sellers based on fair market value appraisals and subsequent land uses would not dramatically change, economic impacts would be minimal. BLM maintains that the proposal is

worthwhile pursuing and, if implemented, would have beneficial impacts to the County.

Finally, BLM recognizes and is sensitive to the local customs and culture of Siskiyou County residents. For this reason, BLM has stated within the FEIS that close coordination with the Siskiyou County Board of Supervisors is integral in the implementation of the proposed action. BLM would only implement the proposed acquisition of available lands within the Shasta Valley Wetland area after consulting directly with, and receiving no formal opposition from, the Siskiyou County Board of Supervisors.

WILD AND SCENIC RIVER ELIGIBILITY

Perhaps the single aspect of the DEIS that generated the most comment was BLM's eligibility studies for consideration under the Wild and Scenic River Act (WSRA). Over 25 respondents supported the eligibility determinations and recommended that BLM acquire available lands within these corridors. Sixty-two respondents strongly supported the eligibility determination for the Sacramento River and suggested that the area be withdrawn from mineral entry. Other respondents prompted BLM to reconsider various rivers that were originally not determined as being eligible, or not assessed within the DEIS.

Eight respondents urged BLM to reassess Big Chico Creek for WSRA eligibility, other respondents exhorted BLM to reevaluate Antelope Creek, Mill Creek, Deer Creek, Bear Creek, lower Clear Creek, Canyon Creek, lower Cottonwood Creek, upper Klamath River, and Butte Creek. Many respondents that supported the eligibility determinations of particular creek or river segments, provided BLM with information regarding the character of the segments supporting their conclusions. One respondent suggested that all anadromous fisheries should be determined eligible.

Some respondents were not supportive of eligibility determinations for upper Clear Creek due to the impacts of past mining operations, and another respondent suggested that NWSRA designations might lead to degradation of particular sensitive segments and restrict handicapped access opportunities. Several respondents were concerned with the impact that eligibility determinations might have upon private lands within the respective corridors, and others urged BLM not to consider river or stream segments unless BLM could acquire available private lands. Finally, several respondents indicated that the corridors identified within the DEIS for the Trinity and Klamath Rivers (both existing components of the NWSRS) were inadequate.

The DEIS's decision to defer suitability studies was criticized by several respondents. Those who urged BLM to complete suitability studies were concerned that degradation could occur within the corridors unless Wild and Scenic River designations were made by U.S. Congress immediately.

In response to the comments, BLM staff reassessed several river and creek segments and modified the FEIS accordingly. Big Chico Creek and Bear Creek were found to be eligible for inclusion due to their outstandingly remarkable recreational values. Furthermore, since release of the DEIS, Canyon Creek was determined to be eligible by the U.S. Forest Service, and Jenny Creek on the Oregon border was determined eligible by the Medford District of the Bureau of Land Management. Reassessments of other river and creek segments reaffirmed original eligibility determinations.

BLM maintains the position to defer suitability determinations. Current budget and time constraints make it impossible for BLM to prepare suitability studies within the FEIS. BLM has recommended suitability studies for the various determinations within the FEIS and plans to conduct those studies during the implementation of the Resource Management Plan. In the interim, BLM will manage parcels of public land within the eligible corridors in a manner that would not impair their outstandingly remarkable values or free flowing characteristics on public lands within the study corridors.

COMMENTS AND RESPONSES

The following section is a summary of public comments made on the DEIS. Most of the comments listed below are direct quotations taken from letters, while others are generic and represent individual sentiments expressed during public meetings. Every attempt has been made to accurately capture and display each substantive comment. Comments and responses are presented in numerical order, although numerical gaps are apparent due to the grouping of similar comments. BLM maintains a file containing all letters received on the DEIS; individuals wishing a photo copy of these letters should contact the Redding office.

COMMENT 1

Because most of the area consistently goes out of standards for dust pollution, BLM needs to establish a monitoring system to assess dust production from its developed OHV areas. This could be done in coordination with local governments.

Procedures are needed to enforce restrictions and monitor impacts in OHV areas. The California OHV fund should be used to fund such programs.

RESPONSE 1

See also #207 for Soil, Air and Water Monitoring Program. In the proposed action, BLM has determined to perpetuate one off-highway vehicle (OHV) area within the Interlakes Special Recreation Management Area. State OHV grants provide funding to implement resource protection and law enforcement within the OHV area. BLM law enforcement rangers and U.S. Forest Service (Level IV) law enforcement personnel are funded and will enforce all applicable regulations. In addition to using law enforcement BLM has begun and will expand monitoring of soil loss on roads and trails within the area. Although it is not feasible to eliminate all fugitive dust, use of rock trails and abandonment of unsuitable trails will help minimize this problem.

COMMENT 2

The document should allow the transfer of National Register quality locations only to other government bodies, either national, state or local. No transfer should be allowed without a full field check for cultural resources. Past checks, if thorough enough, would suffice.

RESPONSE 2

The transfer of National Register quality properties to non-federal entities will be dependent on the outcome of review and agreement between BLM and the President's Advisory Council on Historic Preservation per Section 106 of the National Historic Preservation Act and 36 CFR 800. If proper mitigation or safeguards are secured prior to the action, then such transfer is permitted under law and will be conducted only in the public interest. No transfer of properties will be undertaken without full compliance with the law which is designed to protect cultural properties and values. Prior to any federal or federally-approved action on the public lands, a thorough archaeological and Native American inventory is conducted according to professional standards.

COMMENT 3

The [commentor] recommends that the Yolla Bolly Wilderness Study Area be given a changed recommendation to Wilderness, and that it be transferred to the USFS.

RESPONSE 3

The Sierra Club recommendation that the Yolla Bolly Wilderness Study Area non-wilderness recommendation be changed to a wilderness recommendation and that the parcel be transferred to the U. S. Forest Service is at least partly outside the scope of this plan. All BLM wilderness recommendations for California are included in a separate report to the U.S. Congress and are the result of a long-term study and analysis effort initiated well before the Redding RMP. For information concerning this area's non-wilderness recommendation see Wilderness Recommendations, California Section 202 Wilderness Study Areas, BLM, 1987. The parcel has been identified for transfer to the Trinity National Forest.

COMMENT 4

[The Commentor] supports the Enhancement of Natural and Cultural Values alternative, incorporating all our other concerns, for all the management areas. We feel that this alternative provides the best for future generations of all the proposals, and the long-term consideration should be BLM's highest concern.

RESPONSE 4

In developing land-use management alternatives by individual Management Area, BLM attempted to represent..."a varying mixture of goals which can be accomplished under current funding levels"...as stated on Page 3-1 of the Draft RMP. Unfortunately, selection of the Enhancement of Natural and Cultural Values alternative for every management area would result in an unrealistic charter doubling the amount of present BLM administration while intensifying management commitments and costs. Therefore, the proposed action (a mixture of alternatives) was selected to emphasize BLM management of regionally significant values while roughly maintaining the amount of public land under BLM administration (approximately 250,000 acres). The proposed action is deemed prudent and will help ensure that multiple-uses of the public land be managed in the best..."combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and non-renewable resources", as noted in Section 103(c) of Federal Land Policy and Management Act (FLPMA).

COMMENT 6

The [commentor] questions the potential expansion of off-road vehicle use in the Interlakes Area as provided in all alternatives. Little environmental assessment is provided of the potential impacts of this activity, particularly in areas with extremely erosive soils.

RESPONSE 6

The Gene Chappie/Shasta OHV Area is the major component of the Interlakes Special Recreation Management Area. This OHV area was established prior to the initiation of the RMP and has undergone environmental assessment consistent with the requirements of NEPA. In fact, one of the primary determinants for setting the OHV area in this location was the durability or non-erodability of the soils which are composed primarily of rhyolitic materials. BLM hopes to attract OHV users from areas with more fragile natural resource values, e.g. decomposed granitic soils.

COMMENT 7

The informal shooting site should be removed from the Sacramento River Management Area because it limits recreational use along Paynes Creek.

RESPONSE 7

Numerous negotiations with other agencies and private organizations have been started to locate a shooting range on public land under the Recreation and Public Purposes Act. None of these efforts have been successful. Even if they were, only a fraction of the target shooters who use the Holyoak range would be interested in shooting in a formalized situation. The informal shooting area at Holyoak was established as implementation of the Sacramento River Area Management Plan (SRAMP - BLM, 1986), and is functioning effectively to draw informal shooting away from less suitable areas. If BLM determines that a shooting area is incompatible with otehr public uses as part of updating the SRAMP, BLM may close the shooting area at that time.

COMMENT 8

One thing I did not see is consideration of the new law regarding border studies for the National Parks units. Is this law going to require you to temporarily reserve more land adjacent to Lassen National Forest and Shasta-Trinity-Whiskeytown National Recreation Area?

RESPONSE 8

BLM adjoins only one unit administered by the National Park Service, i.e., the Whiskeytown Unit of the Whiskeytown-Shasta-Trinity National Recreation Area. As part of the alternative formulation part of developing the Draft RMP, BLM met with the National Park Service to ensure that plan implementation would complement the administration of their unit. In the proposed action of the Final RMP, BLM would increase public land ownership northwest and southeast of the unit. The objectives for these areas are consistent with the National Park Service.

COMMENT 9

An apparent contradiction exists between protection of archaeological resources and allowing motorized access to such sites. BLM should elaborate on what the intent is here.

RESPONSE 9

Vehicle use classifications are designed for general areas with specific designations applied with such factors as resource sensitivity, recreation opportunities, etc. in mind. This often occurs in the activity planning stage. Where access has led to problems in site protection, then fences, gates, signs, periodic monitoring, and road closures have been used. In some cases road closure is not possible as the road may lead to private property or to specific project areas. BLM is mandated to protect archaeological sites and if there are specific problem areas, attention can be directed to these if brought to BLM's attention. Merely having a road run past an archaeological site does not necessarily mean that impacts will occur to that site. Sometimes having a public presence in the vicinity of a site lessens the chances that looters will operate there.

COMMENT 10

The FEIS should discuss how BLM will determine whether any lands proposed for acquisition contain sites where hazardous wastes were disposed of in the past. The presence of hazardous wastes could diminish the habitat and public recreation values of the proposed acquisitions. Furthermore, once the lands became BLM property, BLM would become a potentially responsible party under the terms of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA). As such, BLM could legally be responsible for remedial investigations, clean-up activities, and full or partial clean-up costs.

RESPONSE 10

The requested information is a matter of BLM policy in California. A "level 1 checklist" is used which includes a records search and an on the ground inventory of the identified exchange, or purchase, when these proposals are made.

COMMENT 11

Clear Creek near Redding is one of the several areas where California Department of Water Resources has performed fishery restoration studies and plans to begin corrective instream work soon. We endorse the RMP's recommendation to acquire a fishery and recreation use corridor along the lower 12 miles of Clear Creek with the understanding that fishery restoration will be a primary activity which BLM encourages. The Wildlife Conservation Board (WCB) and the City of Redding have recently

purchased land on Clear Creek near Saeltzer Dam, and additional purchases are being investigated. The BLM should coordinate any land trades along Clear Creek with these agencies.

We feel that caution is warranted concerning the proposed trade of existing BLM holdings located immediately north and south of Saeltzer Dam outside the proposed creek acquisition corridor for the following reasons:

1. Maintenance of some upland areas around the narrow creek corridor is desirable for diversification of habitat to accommodate species other than anadromous fish and waterfowl.

2. Clear Creek, like the Trinity River, is choked with fine sediment and one of the States' planned fishery restoration activities will be to reduce this sediment load.

The suitability of Clear Creek gravels for salmon spawning was investigated in 1965 and 1982 by analysis of the size composition (sieve analysis) of streambed material located in active spawning riffles. None of the eighteen samples taken in 1982 met the DFG criteria for fine material (too much sand and silt) while 3/4 of those taken in 1965 did. This data indicates that the quality of Clear Creek spawning gravel has declined markedly since 1965 due to an increase in sand-sized material, most of which is decomposed granite. The maintenance of some undisturbed upland areas in public ownership will help limit increased erosion and trade of this land to private developers would likely result in increased sediment production.

3. The upland areas in question appear to have high resource values including (a) areas of historic interest - mine shafts, small dams, dredger tailings, early townsite; (b) portions of four ephermal tributaries to Clear Creek; (c) significant riparian vegetation, oak woodland, and timber areas; (d) large rock outcrops, ephemeral cascading waterfalls, volcanic tuff; (e) significant wildlife use by species such as quail, turkey and dove; (f) old roads which could serve as trails for pedestrian and equestrian traffic; and (g) easy public access from Clear Creek Road.

The area is near the cities of Redding and Anderson, which are rapidly growing together. It also surrounds Saeltzer Reservoir which may be excavated in the near future to provide sediment control, gravel for creek restoration, and increased recreation use.

Therefore, we recommend that the BLM land within a couple of miles of Saeltzer Dam be withheld from trade or sale. This will allow its value as a recreation, historic, wildlife, and educational use area close to the rapidly growing Redding-Anderson urban complex to be more accurately assessed. Also, we recommend that BLM fully coordinate with the WCB and the City of Redding in acquiring land along the Clear Creek corridor because both have recently purchased property in this area.

The [commentor] strongly supports the objectives of (1) enhancement of anadromous salmonid habitat on Clear Creek (Page 3-59) (we plan to provide fish passage at Saeltzer Dam and rehabilitate the stream for anadromous fish), (2) the withdrawal of flood plain lands from mineral entry (Page 3-60), (3) acquisition of private lands along Clear Creek which may be important for rehabilitation of anadromous fish habitat (Page 3-61) and (4) the development of a resource activity plan to protect and develop the anadromous fishery resource (Page 3-61).

We recommend that BLM retain ownership of their lands draining to Clear Creek below Whiskeytown Dam for watershed protection. These lands should be withdrawn from mineral entry and off-highway vehicle use in high and extremely high erosion hazard areas.

RESPONSE 11

Comment #11, has identified several areas of concern by both the public and State agencies. The primary concern is that the BLM is considering exchanging lands in the Clear Creek uplands vicinity for lands with higher values i.e., along Clear Creek or elsewhere in the Resource Area. BLM has modified the proposed action of the RMP to make the approximately 280 acres of public land available for transfer to a qualified organization via the Recreation and Public Purposes Act (refer to Map 3-52 and the proposed action for the Shasta Management Area in Chapter 3.

BLM feels that existing and proposed Shasta County Hillside ordinances if properly enforced would provide adequate protection for the watershed.The study dates of the "Spawning Gravel Study" correspond closely with the completion of Whiskeytown Dam. The increase in fines (sand & silt) may have been partially caused by reduced stream flows and the lack of flushing flows resulting from construction of Whiskeytown Dam in 1965.

The corridor recommended along Clear Creek would be sufficient to support those wildlife species that would normally be found in a riparian area. In this area most

of the wildlife species that would normally be found on the uplands would also be found in the riparian zone.

Resource values in this area are similar to other public tracts of land that are within the sphere of influence of Redding and surrounding communities and do not contain any resource values that are significant on a regional or state wide basis, i.e. endangered species habitat, unique wildlife species, mining artifacts and etc.

COMMENT 12

The Horsetown-Clear Creek Preserve Coalition (HCCP) is composed of leading educators, organizations (conservation, historical, scientific, handicapped-advocate, recreational, etc.), and individuals who have studied, proposed, and advocated the establishment of a Natural, Educational, and Historical Preserve in the Clear Creek area, in the vicinity of Saeltzer Dam.

The preserve would utilize about 700 acres of federal public land, administered by BLM, 74 acres of Department of Fish and Game land, hopefully 75 acres owned by the City of Redding, and possibly additional land now under consideration for purchase by the Wildlife Conservation Board.

Our comments are primarily limited to the Clear Creek area.

1. Our most urgent concern involves the status of approximately 700 acres of BLM land comprising a fairly compact block centered around Clear Creek, and Saeltzer Dam, and adjoining about 150 acres of land belonging to the City of Redding and Department of Fish and Game. As you know we submitted a detailed proposal on March 14, 1989 proposing the establishment of a natural, educational, and historical preserve, utilizing all of these lands, and possibly others, total about 1,000 acres. Since that time we have carried on a continuing dialogue in this regard, with leaders and administrative personnel in the Redding Resource Area office of BLM, with their apparent support of the proposed Preserve. Surprisingly, the RMP does not recognize, consider, or address this important proposal in any way. We feel that this is a grievous oversight, which should be corrected.

2. Chapter 2 notes that "An issue that arises often is the conflict between various types of recreation and between recreationalists and private land owners," and "The public has requested that BLM attempt to resolve the conflicts between "loud" and "quiet" uses of public land." The situation in the Saeltzer Dam area of Clear Creek is prototypical of this type of problem. Page A-9 of the [Draft] RMP states "Clear Creek Valley also receives a large amount of illegal activities, such as trash dumping, camping violations, and general rowdyism."

The Department of Water Resources fishery study (1986) adds "litter is a major problem, as is the abuse of alcohol and drugs by some recreation users. Uncontrolled overnight camping and salmon poaching are also problems." Massive shooting (NOT "plinking") with large calibre semi-automatic weapons, and similar artillery, is threatening to other users and annoying to property owners.

There is no simple, instant solution to these problems, but retention of the 700 acres of BLM land in the Saeltzer Dam area, and incorporation into a Natural, Educational, and Historical Preserve would be major step in that direction. The extensive presence of legitimate and quiet users, coupled with a ban on alcohol, shooting, and motorized vehicles within the preserve, and definitive enforcement as needed, would certainly displace these illicit and anti-social uses, and separate "loud" from "quiet" uses, as the public has requested (Page 2-3). This is exactly what happened on the Sacramento River Trail. In fact, little enforcement was needed.

Basic to the solution is establishment of the Preserve, and basic to the Preserve is retention of all 700 acres of BLM land within one to two miles of Saeltzer dam.

3. We are unable to find a clearcut definition of the boundaries of the Lower Clear Creek Area in the RMP, but on Page C-3 a discussion of potential ACEC designation for Clear Creek describes it as a "narrow ribbon encompassing the 100 year floodplain of Clear Creek".....It adds that "continued demands on this stream coupled with anticipated increases in indirect impacts will certainly degrade the remaining value of this regionally significant stream."

The HCCP would buffer this "narrow ribbon" and go a long way toward preventing this "certain degradation" by preventing erosion, restoring habitat, and educating students and the public. In addition, it would furnish abundant resources for recreation and outdoor facilities for education in all the natural sciences.

Development right up to the edge of the "narrow ribbon" would accelerate the degradation, as would "community pit designation" (Page 3-10) and motorized vehicles on "designated roads and trails".

4. We commend you for the objectives you have perceived and listed for Lower Clear Creek on Page 3-59. We agree with all, as noted in D-1 through D-6. You strive to: enhance anadromous fish habitat, restore the quality and quantity of riparian vegetation, enhance non-motorized recreation, establish a green belt, maintain scenic quality, protect native plant communities, protect fauna, and protect historic values of the area.

We do not feel that any of these fine objectives can be achieved within the constraints of a "narrow ribbon" of riparian land as shown on the proposed action map, or described in the RMP. Then heavy recreational use anticipated - in fact, already present - would impact, and threaten, riparian vegetation, native plant communities, and fauna. A 1,000 acre preserve (HCCP) would act as a critical buffer and furnish essential habitat not offered by a narrow ribbon crowded by development, motorized vehicles, noise, etc. at it's margins.

Development and excavation of these lands immediately surrounding the proposed "narrow ribbon" would flood Clear Creek with silt and sediment, damaging spawning areas and impacting fisheries. There are several seasonal streams on each side of Clear Creek, within the proposed HCCP. Those on the south side are rather steep. Experience in the Redding area has shown disastrous results recently from development around such mini-watersheds. The HCCP would eliminate these risks.

Objective D-6 (protect historic values) is meritorious. This is an area with rich and important mining history. Most mining residua are in the lands scheduled for disposition. If all of the peripheral lands in the Saeltzer Dam area are retained, and the HCCP established as proposed, these sites will not only be saved, but identified, interpreted, and used now and in the future.

5. We have been told repeatedly of local BLM officials that they see "no values" in the 600 + acres of peripheral lands identified for disposal. We emphatically disagree. A group of individuals (with professional knowledge of geology, native plants, history, civil engineering, fisheries, and water management) have systematically toured and inventoried these properties. Although the property is not pristine, and has no spectacular natural features, it does have diverse and impressive qualities which would combine to make an excellent, interesting, and stimulating preserve. Features include a varied tree canopy (heavy in places), varied native plants, interesting diverse geologic materials, including granite, sandstone, conglomerate, shale, limestone, volcanic tuff, greenstone, and alluvial gravels.

We also noted several small wetlands with rushes, cattails, and willows and a year-round pond. Remnants of mining included numerous tunnels, ditches, stone walls, stone and earth dams, deep trench excavations, a grove of black locusts surrounding probable old foundations, hydraulic workings, dredger tailings (some hand-stacked tailings in upland area), and a stone lime kiln (on private inholding). The properties are laced with dirt roads and trails.

Perhaps the most outstanding qualities are the size, conformation, location, and accessibility of this block of land parcels, coupled with their spectacular suitability for satisfying several urgent and pressing needs which we have outlined to you in detail in the past. These include a need for an outdoor resource area to be used by students (K-14) in the study of basic and applied natural sciences, environmental science, local history, etc. Such a facility must be close to the schools, easily accessible, bio-diverse, with abundant water. Clear Creek is perfect - and is public land. Can you think of any other place so ideal? We can't.

The fact that the land is somewhat abused might even be an asset. It can serve as a living laboratory where the students can learn and practice restoration and rehabilitation - then watch the fruits of their labor as nature heals the land over the school years, decades, and generations. And we all benefit as the land becomes more healthy and beautiful.

The marvelous educational opportunities alone would easily justify retaining ALL 700 acres of BLM land grouped around the Saeltzer Dam area and establishing a preserve (HCCP but there are other reasons, including:

a. Buffer and prevent erosion/siltation damage to anadromous fishery.

b. Offer a facility to help meet the staggering need and latent demand for quiet, non-consumptive, nature-oriented recreation, as revealed in California Department of Parks and Recreation study.

c. Preserve, and make available, historical mining sites for public interest and study.

d. Restore and preserve 1,000 acres of rapidly disappearing habitat.

e. Serve as an accessible natural outdoor recreation area for handicapped, disabled, and seniors.

f. Help achieve objectives D-2 and D-5 (Page 3-59) by offering a buffer, and taking some of the "people pressure" off of the narrow riparian strip.

g. Save a precious package of bio-diverse lands in the path of a tidal wave of urban expansion and development which already threatens the northeast corner of the proposed preserve. Once gone, it will be irreplaceable. There is nothing comparable.

h. Take advantage of the strong and unique coalition of competent, informed, responsible community leaders, organizations, and agencies to work together on this valuable community asset.

RESPONSE 12

Although the comments are principally related to boundaries of a suggested "Horsetown-Clear Creek Preserve", (HCCP) our response is developed to address each numbered section to ensure full consideration and thoroughness.

1. The Draft RMP fully considered the recommended boundaries of the HCCP in the Enhancement of Natural and Cultural Values alternative, as described on Pages 3-56, 57, and 58, and as depicted on Map 3-4b. The proposed action recognized the regional significance of the creek and immediately adjoining area but did not recommend the protection of resources of local importance north of Clear Creek Road. Refer to Pages 3-1 and 3-2 for definitions of the land-use management alternatives.

The proposed action of the Draft RMP recommends the protection of more than 4,000 acres between the Sacramento River and the Whiskeytown Unit of the National Recreation Area. More than 2,500 additional acres of adjoining public land between Muletown Road and Swasey Drive were identified for management consistent with Clear Creek. The southern boundary of the management unit has been shifted from the base of the slope paralleling the creek to the top of the slope encompassing an additional 1,000 acres to protect the scenic quality of the setting. The slope had been omitted originally since the steep and erodible slopes were considered by BLM as defacto greenway. Finally, in response to local concerns the public lands north of Clear Creek Road encompassing approximately 280 acres have been included as part of a zone available for transfer under the Recreation and Public Purposes Act.

2. The BLM collected more than forty tons of garbage from public lands along Clear Creek Road in the spring and summer of 1991. The problems of resource abuse are principally a result of fragmented, absentee ownership and lack of identifiable, manageable boundaries. Clear Creek Road is a clear demarcation which could help segregate land uses and users. Thoughtful development north of Clear Creek Road consistent with adjoining Rural Residential (5-acre minimum) zoning will also help alleviate problems of trespass and illegal activity.

Public lands are open to firearm usage and alcoholic beverages are permitted unless specific prohibitions are developed. These prohibitions are generally developed as part of an activity plan for a particular area or in response to local and/or state laws. The RMP does not consider this level of detailed management decision-making.

3. As stated above, the boundaries for Clear Creek in the Draft RMP (below Clear Creek Road Bridge specifically) used Clear Creek Road on the north and the base of the slope of the bluff paralleling the creek on the south. The Final RMP has shifted the southern boundary to the bluff-line except in a few cases. This area includes more than 5,000 acres varying in width from one-quarter mile to nearly one mile.

Appendix C of the Draft RMP discussed determinations to designate (or not) specific areas as Areas of Critical Environmental Concern (ACEC). The 100 year floodplain considered for ACEC designation represents only a portion of the area recommended by BLM for protection and cooperative management along Clear Creek.

The several thousand acres of existing and proposed public or other protected lands will provide more than ample opportunity for local environmental educational needs and local recreational opportunities. It will also ensure the ability to protect and enhance the quality of the fisheries and the riparian community.

4. BLM does not propose to protect only a "narrow ribbon" of riparian land. In recognition of the nature of the slopes south of the creek, BLM has extended the boundary southward to the top of the bluff. Adherence to the grading ordinance and other requirements of the County of Shasta and City of Redding are deemed suitable to protect the integrity of minor streams north of Clear Creek Road should the area be developed. The HCCP would protect a negligible percentage of these

small streams tributary to Clear Creek. Moreover, retention of gerrymandered public holdings encompassing approxmately 280 acres will afford little resource protection. However, to ensure that BLM is sensitive to local initiative, these specific parcels of public land are made available for transfer to qualified organizations under the Recreation and Public Purposes Act in this Final RMP.

Regarding historic values of the area and BLM resource condition objective (ID 6 on Page 3-59 of the Draft RMP), we intend to protect and interpret historic values within the area delineated in this document. The objective, though important, is ancillary to the biological and recreational values of the area. BLM is obligated to fully consider the importance of historic values located on public lands subject to any disposal action (refer to Pages 3-2 and 3-6 of the Draft RMP) and pages 3-3 and 3-6 of this Final RMP). Although some earlier mining features have escaped destruction by subsequent mining activity, no features north of Clear Creek Road on public or private lands are presently considered to contain regionally significant values.

5. The area north of Clear Creek Road contains resources and values commonplace within the area surrounding Redding and found throughout the region. Indeed, much of the values of the area are the result of past mining including a dredger pond. BLM has equal and better opportunity within the greater Redding area to protect and interpret these values, e.g., Clear Creek corridor, Muletown Road, and Swasey Drive. These areas are equally and in many cases better suited for public use without the pitfalls and liabilities of scattered and dangerous mining adits or tunnels. Grant Elementary School, for instance, is within one mile of a proposed Area of Critical Environmental Concern for cultural resources adjoining Swasey Drive. Local residents will have this area and Clear Creek to enjoy, as proposed by BLM in the Final RMP. Moreover, if a qualified organization is willing to administer the 280 or so acres of public land north of Clear Creek Road, they can apply for lease or patent of the parcels under the terms of the Recreational and Public Purposes Act.

COMMENT 13

I want to go on record as strongly supporting Wild and Scenic designation for 25 miles of the Sacramento River above Red Bluff.

This stretch of the river is the most beautiful and pristine of any part of the river in the Sacramento Valley, with its canyons and natural vegetation. Most of this area shows no signs of civilization and looks pretty much as it did hundreds of years ago.

For the scenery alone, the preservation of this part of the river is highly worthwhile. But, designation as Wild and Scenic is needed to protect the fish wildlife, and plant species as well.

I urge continued acquisition of riverfront land and the management of land adjacent to the river for non-motorized recreation. Grazing should be reduced to protect rate plants and wetlands.

I also urge Wild and Scenic status for these creeks: Clear Battle, Paynes, Mill, Deer, Butte, Beegum, North Fork Cottonwood, Middle Fork Cottonwood, South Fork Cottonwood, and for the Shasta River. Also, please reaccess the possible eligibility of the following creeks: Big Chico, lower Butte, Antelope, Bear, lower Clear, and the main stem of Cottonwood Creek.

I respectfully suggest Wild and Scenic status for the above streams with the thought that, once these areas are lost to development, they will be lost forever.

RESPONSE 13

Please refer to BLM's response to Comment 14 concerning the eligibility of the various streams for Wild and Scenic River status.

The Redding Resource Area is actively pursuing the acquisition of additional land along the Sacramento River between Red Bluff and Balls Ferry.

Our plan is to manage the river lands in such a manner to preserve the scenic beauty while still allowing access to the general public and the customary users of the public land. Grazing will be allowed in the upland areas while every effort is made to protect the sensitive riparian zones.

Please also refer to BLM's response to Comment #355 for more detail.

COMMENT 14

At the onset, we support, applaud, and commend BLM for the finding that 25 miles of the Sacramento River (from Balls Ferry bridge to about four miles upstream of the Interstate 5 bridge in Red Bluff) are eligible for protective designation within the National Wild and Scenic Rivers System. We concur with BLM that this stretch of the Sacramento River possesses "outstandingly remarkable" cultural, fisheries, recreation, vegetation, scenic, and socio-economic resources. We hope and recommend that BLM will do everything possible to finalize this protective designation, including aggressively pursuing this designation through Congress.

[Commentor] also supports BLM's eligibility findings for other possible designations under the National Wild and Scenic Rivers System. As you know, the segments found eligible for this protection are: Battle Creek, Beegum Creek, Butte Creek, Clear Creek, NF Cottonwood Creek, MF Cottonwood Creek, SF Cottonwood Creek, Deer Creek, Mill Creek, Paynes Creek, and Shasta River. We support willing seller BLM acquisition programs to consolidate BLM management along these river and stream corridors.

However, we are concerned that at least six river segments may have been erroneously determined to be ineligible for protection under the National Wild and Scenic Rivers System. Although BLM may have minimal landholdings along these six river segments, we nevertheless believe that these landholdings are critical and that BLM should have given greater weight to these eligibility assessments. Therefore, please reassess the following for eligibility for protection under the National Wild and Scenic Rivers System: Antelope Creek, Bear Creek, Big Chico Creek, Lower Butte Creek, Lower Clear Creek, and Cottonwood Creek. If reassessment leads to an eligibility finding, then we support and recommend that BLM pursue willing seller acquisitions to consolidate BLM management in these river corridors.

Given the overall trend in California of accelerating habitat fragmentation and isolation, it is imperative that these river and stream segments possessing one or more "outstandingly remarkable" resources be effectively protected. These important river and stream corridors not only sustain diverse and abundant fish and wildlife populations, but also enable movement of many other species between different habitats. Recent studies have demonstrated often severe impacts of species when this ability to move is blocked or significantly restricted. Some relevant materials are enclosed which you may find of interest, and which may also help demonstrate the importance of these proposed protective river and stream designations.

RESPONSE 14

We have reassessed the public lands along portions of Antelope Creek, Bear Creek, Big Chico Creek, lower Butte Creek, lower Clear Creek, and Cottonwood Creek for eligibility in the National Wild and Scenic River System (NWSRS). Our final conclusions on the eligibility of these waterways are shown in Appendix A and summarized below.

Antelope Creek-Ineligible

Bear Creek-Eligible

Big Chico Creek-Eligible

Lower Butte Creek-Ineligible

Lower Clear Creek-Ineligible

Cottonwood Creek-Ineligible

BLM is willing to acquire available unimproved lands along any stream corridor in areas (or polygons) identified for consolidation of public lands. BLM does not intend to acquire lands along any stream corridor within areas identified for the transfer or disposal of public lands unless the corridor is determined suitable and subsequently added to the NWSRS. If study corridors are determined unsuitable and not added to the NWSRS, BLM will exchange or transfer public lands within areas (or polygons) identified for disposal of BLM-administered public interests.

COMMENT 15

Our review of your Draft EIS, and particularly the Chapter on Environmental Consequences shows no consideration for the Human Health impacts of your alternatives. It should be obvious that when you consider wetland issues, water resource preservation and water fowl impacts, that the mosquito production and other human health consequences should be considered and mitigated.

The requirement for this consideration lies in the National Environmental Policy Act (NEPA) and its implementing regulations.

1. NEPA Policy in Section 101(b)(3) which says:

   (b) In order to carry out the policy set forth in this Act, it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may:

   (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety or other undesirable and unintended consequences; (emphasis added)

2. Required Federal actions to implement NEPA are found in 40 CFR Section 1500 et seq. Section 1500.2 contains the following requirements:

Federal agencies shall to the fullest extent possible:

a. Interpret and administer the policies, regulations, and public laws of the United States in accordance with the policies set forth in the Act and in these regulations (emphasis added; note specific references to policy compliance.

e. Use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment (emphasis added).

(f) Use all practical means, consistent with the requirements of the Act and other essential considerations of national policy to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions upon the quality of the human environment. (emphasis added)

Our review of the list of EIS preparers shows that these persons do not appear to include anyone with credentials in public health, and the consultation list does not show agencies which specialize in health considerations, We hope that you will consult with County Health and Local Government agencies who have responsibility for protection of human health in the areas covered by your EIS.

We note further that the "Sacramento River Area Outstanding Natural Area" includes the riparian areas along this river, where extensive mosquito breeding now occurs. At the very least, your EIS should recognize that mitigation must include a commitment by BLM to manage land under its control so it does not become a public nuisance. Under California Law, a breeding place for mosquitoes is a public nuisance. In addition, you should specifically preclude any conditions on access and activities on BLM land which would serve to block access, inspection and treatment, if necessary, for public health pests, on BLM managed land.

RESPONSE 15

It is BLM policy to use mosquito fish in wetlands and areas that can be used as mosquito breeding areas. In those areas that are close to residential areas treatment with Bacillus thuringiensis is allowed after an environmental analysis has been completed. New wetland construction projects would consider human health at the activity plan level and mitigate impacts accordingly.

Access to all public land tracts would conform with alternative that is selected, i.e. proposed action. On those areas that are designated as roadless, mosquito abatement and other resource uses (bee keeping, livestock grazing, etc.) would have to comply with the regulations that apply to the area. Public lands are not closed to the public, however, there are parcels that do not have legal public access.

COMMENT 16

Would like to see the Swasey Drive area restricted to non-motorized uses and to have the shooting area closed.

RESPONSE 16

Closure of the Swasey area to shooting and motorized uses would displace the majority of this area's traditional public land visitors, as well as require a substantial investment by the Federal government for effective enforcement. As with many other public land parcels adjoining developed areas, there are conflicts between existing uses and new development on adjoining private land. Although the Redding Office of BLM has taken measures to reduce these conflicts in the Swasey area, some neighboring residents are not likely to be completely satisfied unless such areas are virtually closed to general public visitation. The Swasey area use conflicts will be more appropriately handled through management measures rather than land use allocation changes.

COMMENT 17

Concerned about the Clear Creek parcels and the fact that we may dispose of those lands and others in and around Redding.

RESPONSE 17

The Keswick to Sugarloaf Area and other parcels of residual public land around Redding are fractional with irregular boundaries. These configurations coupled with poor access makes it difficult to manage and for the public to enjoy the land. Most of these lands do provide open space benefits to local residents. However, these values are more locally significant and less regionally significant. We have provided in the proposed action opportunities for state and local governments and qualified non-profit organizations to acquire the public lands around Redding through the Recreation and Public Purposes Act for a period of two years from the approval of the RMP, i.e, after the Record of Decision. This should allow for the protection of any significant open space and the construction of public facilities. The Final RMP is also proposing a greenway along Clear Creek from its mouth up to the Whiskeytown Unit of the National Recreation Area. The main objective to enhance anadromous salmonid habitat, and restore the

quality and quantity of riparian vegetation. However, open space opportunities will be enhanced through this measure.

COMMENT 18

Wants to see us hold on to the lands around Redding for open space or at least until the City or County has time to determine the need for the parcels (let the city grow around the parcels first). We should be holding the parcels much longer than the plan indicates.

RESPONSE 18

Please refer to BLM's response to Comment 17. the BLM feels that two years from the Record of Decision is adequate for the City of Redding or Shasta County to determine their needs for the public lands identified for disposal.

COMMENT 19

One issue which is discussed very little in this plan is grazing in riparian areas. We recommend a strong statement in the plan that grazing will be managed in such a way that all riparian areas on BLM land will recover native vegetation as quickly as possible. We recommend that BLM engage in restoration work, that seasonal and permanent exclusions of livestock from riparian area be used where needed to protect riparian values, and that BLM develop water sources for livestock which will make it practical for them to be excluded from riparian areas. Please address these issues in the Final Plan and FEIS.

RESPONSE 19

It is already BLM policy to protect and improve riparian areas. The Redding Resource Area has been quite active in fencing these areas for the exclusion of livestock grazing and is currently developing alternative water sources. BLM has recommended in this RMP that several important riparian areas be closed to domestic livestock grazing. Please also refer to the response to Comment 20.

COMMENT 20

I want to express support for the emphasis in the Plan on protection and restoration of riparian areas. Please retain and strengthen this part of the Plan. I support exclusion of cattle from riparian areas and the development of alternative water sources in order to make this possible. The BLM should do all it can to restore wetlands and riparian areas to natural vegetation in order to protect and enhance fisheries, wildlife and other beneficial uses of water.

RESPONSE 20

Livestock grazing may or may not be permitted in riparian zones,on lands currently managed by BLM. It is the Redding Resource Area policy not to allow livestock grazing in newly acquired areas that were acquired for the riparian resource. These areas would be fenced and alternate sources of water developed for livestock use.

COMMENT 22

When commenting on the USFS management plans the County expressed concerns with the loss of private lands in a County with 75% of its land base managed by federal agencies. Consistent with previous objections, Trinity County strongly discourages such acquisitions but is neutral on within County transfers.

Clear Creek. Your leadership in the reclamation of Clear Creek is a welcome approach. A greenbelt of this size within Redding which produces anadromous tax revenues to Shasta County from the acquisition of private property along the drainage. Perhaps your parcel exchange program is a good vehicle to ensure there are no net losses of tax revenues to counties as your work in the Clear Creek drainage.

A major concern has to do with land acquisition and land exchanges by BLM. The Siskiyou County Board of Supervisors has adopted a policy that basically opposes land exchanges by federal agencies when private land in our County is acquired and public land in another county is exchanged for the private land. This creates a net loss of private land in our County that we can ill afford as our County now is over 60% publicly owned. Your plan does not guarantee that you would follow the policy of our Board in your acquisition program.

RESPONSE 22

BLM is aware of the tax revenue issue in the northern counties. BLM will work towards implementation of the Final RMP by balancing exchanges within the same county. However, not all exchanges lend themselves to being in the same county. Some of the counties have more public lands identified for acquisition than disposal (Shasta and Trinity), while other counties have more acres identified for disposal than acquisition (Siskiyou, Butte, and Tehama.) It will not always be possible to keep values constant within each county although it is BLM's intention to have neutral impact on property tax revenues to the counties. For instance, public lands identified for disposal in Shasta and Trinity counties include relatively high commercial value lands near the communities of Redding, Weaverville, and Hayfork. The private lands identified for acquisition in contrast are generally located in areas of low intensity land uses with relatively low real estate value. Please also refer to Table

4-1 and Appendix H of this Final RMP for additional information.

COMMENT 23

Concerned about blue oak woodlands. In some areas this plant community is not regenerating. Grazing by cattle appears to be one of the causes of this decline. Cattle also adversely impact riparian plant communities, cattle should be excluded from these areas.

Blue Oak Woodlands: We agree with the general management goals for this valuable resource. We suggested that the plan also address the potential for natural and artificial regeneration (replacement) for the Blue Oak species.

RESPONSE 23

The Redding Resource Area is also concerned about Blue Oak woodlands and their regeneration problems. One of the Resource Area's best examples of this vegetation type has been recommended for designation as an Area of Critical Environmental Concern (ACEC) under the proposed action for the Sacramento River Management Area.. This location which is seven miles northeast of Red Bluff, contains over 3,000 acres of prime oak woodlands that will be protected. The Desired Plant Community Definition (see Appendix B) was written for this area and states that tree density would not be reduced from the present level. The methods to maintain this level are something that will be discussed in the next level of planning but could possibly mean the reduction or removal of grazing in certain areas if other methods have failed. See also response to Comment 19 and 20.

COMMENT 24

As you know, the Shasta County Board of Supervisors supports and the City Councils of Redding and Anderson have conceptually supported the idea of pursuing the development of a regional firing range in the vicinity of Iron Mountain Road (Section 5, Township 32 North, Range 5 West). We have noted that on Page 3-59 of the Draft Resource Management Plan that your agency is proposing to recognize the need for a suitable firing-range site in the "Interlakes Special Recreation Management Area".

We greatly appreciate this recognition, but we are concerned that the draft plan doesn't provide for the acquisition of BLM property for a firing range under the Recreation and Public Purposes Act.

We respectfully request that the proposed "Action Alternative" of the plan identify BLM lands in Sections 5, 32, 33, and 28 as potentially available for a 200-acre site to develop a regional firing range with acquisition under the Recreation and Public Purposes Act.

The City of Redding has written BLM regarding objective eight (Shasta Management Area): "Identify, if feasible, a suitable site for a regional firing range at the request of the City of Redding, County of Shasta, or other qualified organization(s)". We believe that the site must be carefully selected, especially if BLM wishes to see objectives two, four, six, and possibly five of the proposed action become a reality. The Iron Mountain Road proposed site would perch the range, in part, over the Sacramento River (Keswick Lake). As I understand it at this time, the proposed Walker Mine Road site would remove the range further away from the river corridor and would be insulated by a small ridge. As you also know, the City and other agencies have conceptually approved of the Iron Mountain Road site and only have been forced to look at another site to satisfy CEQA's requirements. They intend to pursue with eminent domain to achieve their goals. We would like BLM to assist them to find a site beyond their request for Sections 5, 23, 33, and 28 and to provide the necessary language to assist them in your final plan. At the same time, we do not want the Iron Mountain Road site to become a rifle range.

RESPONSE 24

Under the Resource Condition Objectives portion of the Shasta Management Area Proposed Action of the Draft RMP, we have stated that we will identify, if feasible, a suitable site for a regional firing range. However it does not state that the Recreation and Public Purposes (R&PP) Act cannot be used. Under the R&PP Act, uses can be authorized by conveying the public land to the appropriate agency or by leasing. The objectives of the area are to retain all public lands. With this objective in mind, public land might be leased under the R&PP Act for the regional firing range. Also there are other forms of authorization that could be used that do not pass title from the United States of America. Once the City has identified a suitable site for the firing range on public land, then BLM will assist them in applying for authorization under the appropriate law.

COMMENT 25

The EIS appropriately addresses excessive erosion potential for various land uses. However, the suggested mitigation of solving erosion problems on a case by case basis ignores the need to establish a maximum allowed erosion rate or standard. How are high erosion rates defined and measured by BLM ? How are potentially sensitive erosion areas pre-identified and will the EIS require appropriate planning to prevent acceleration of

erosion? Also, are there presently any eroding areas that need to be repaired or protected? Finally, what are the cumulative impacts from examining erosion on a case by case basis?

RESPONSE 25

Potentially sensitive erosion areas and high erosion rates are defined in the Ukiah District Resource Monitoring standards which also defines monitoring methodology.

The RMP/EIS is a land use plan which is designed to allocate the uses of resources. More detailed planning will occur in the activity plans and site specific Environmental Assessments where mitigation measures will be identified.

Even though a part of our erosion assessments are on a case by case basis, we have not ignored the need to establish a maximum allowed erosion rate or standard. We are presently using the rate that the U.S. Soil Conservation Service has set. Monitoring this rate throughout the Resource Area is a commitment that is impractical to fully implement due to the scattered nature of the public lands administered by BLM. (See response to Comment 109).

Several areas have been identified in the RMP/EIS requiring repair or protection. The continuance of monitoring would possibly reveal additional areas that require response by BLM.

COMMENT 26

The EIS should require users to prepare complete rehabilitation plans and post surety bonds before mineral exploration and development.

RESPONSE 26

This concern is beyond the scope of the RMP/EIS process. Mineral exploration and development on public lands are governed by the 43 CFR 3000, et. seq., Regulations and applicable Federal and State of California laws. When miners are required to prepare complete rehabilitation plans and post surety bonds they will before initiation of mineral exploration or development.

COMMENT 27

We especially do not want to see vehicles in the proposed greenway connecting Redding to Shasta Dam along the Sacramento River, except at Coram area.

RESPONSE 27

BLM has no plans to expand the Gene Chappie/Shasta OHV area.. If BLM receives administrative jurisdiction of the proposed Sacramento River Greenway, we will be obligated to identify the types of recreational uses and trail locations as part of an Integrated Resource Activity Plan. the public will be encouraged to guide BLM in developing that plan and its specific recommendations.

COMMENT 28

We would like to see BLM adopt a broader habitat preservation plan in the Interlakes Area beyond "special species habitat". A preserve with educational opportunities in the Lower Clear Creek area is also desirable.

RESPONSE 28

The proposed action for the Interlakes SRMA recommends protection and improvement of the long term condition of deer winter range. If this goal is realized overall habitat for many species will occur during the life of this plan. Many of the trails and roads would be closed when deer are on the winter range. Also envisioned is protection of Shasta salamander habitat and improvement of northern spotted owl habitat. The proposed action for the Shasta Valley Management Area anticipates significant public use of the lower Clear Creek/Mule Mtn. and Swasey Drive vicinities for recreation and education.

COMMENT 33

The Draft Plan recommends acquisition and protection of native wetlands to enhance waterfowl, other wildlife, water quality and fisheries values. We recommend strong support for BLM's preferred alternative for this area. The Shasta River is in poor shape. Strong protective and restoration efforts are needed to return it to health and biological productivity. We strongly support the Plan's emphasis on purchasing these wetlands. The Plan and FEIS, however, should specifically commit BLM to excluding livestock from any wetlands obtained in the Shasta Valley in order to provide for restoration of riparian vegetation in the shortest amount of time.

RESPONSE 33

Grazing of livestock on acquired wetlands would be analyzed at the time of exchange. Any decisions regarding grazing would be made on a site specific basis. Wetlands generally would be fenced to restrict grazing, however livestock could be used to remove dense stands of aquatic plants and heavy accumulations of mulch if the removal of these plants would improve the overall condition of the wetland.

COMMENT 34

KLAMATH AND SHASTA RIVER CANYONS:

BLM proposes an alternative called "Resource Use With Natural Values Consideration". This would offer protection for riparian areas and direction for enhancing fisheries. However, we urge adoption of the alternative

titled "Enhancement of Natural and Cultural Values" because it offers even more resource protection. This is the right alternative for these areas because the aquatic resources in those areas are extremely important because they are in a degraded state. Our specific recommendations for this area are:

Expansion of the Shasta River Canyon's designation as an Area of Critical Environmental Concern (ACEC) thus giving anadromous fish more protection and consideration.

Increased protection for rare native plant communities, and

Enhanced native American access to traditionally sites on Black Mountain and the Shasta River.

RESPONSE 34

There are not any additional benefits to aquatic resources between the proposed action "Resource Use With Natural Values Consideration" and the alternative "Enhancement of Natural and Cultural Values" in the Klamath and Shasta River Canyons. In both cases the Shasta River ACEC's is expanded beyond its present extent. The Black Mountain area was dropped as an ACEC because the resources were not considered as being remarkable or regionally significant. Black Mountain was also not considered in the Shasta River ACEC because it is a different ecosystem with vastly different resources and management needs (refer to Chapter 3 under the Rationale for the Proposed Action for the Klamath Management Area and Appendix C under Black Mountain).

COMMENT 35

We strongly recommend designation of the Upper Klamath River Canyon as a federal Wild and Scenic River. Such a designation is the only sure way to prevent the Salt Caves Dam which, if built, will severely damage native trout fisheries and white water rafting. Both forms of recreation are very important to the economy of Siskiyou County. Wild and Scenic designation is supported by many Chambers of Commerce groups in Northern California. The Final Plan and FEIS should not side-step this issue. We urge that the final documents formally recommend designation of the Upper Klamath as a Wild and Scenic River. We further urge that the Final Plan adopt a management direction that protects and enhances the "outstanding and remarkable" features of this stretch of the Klamath River.

BLM should not wait for "conclusive action" by Congress on the upper Klamath River in Oregon before recommending the California portions for inclusion in the Wild and Scenic Rivers system. Having determined that the River is eligible, there is no reason to delay the logical next step of recommending it for inclusion.

RESPONSE 35

In March 1990, the "Final Eligibility and Suitability Report for the Upper Klamath Wild and Scenic River Study" was completed by the Klamath Falls Resource Area, Lakeview District BLM office. This final report, which was forwarded to the U.S. Congress, found that the California section of the Klamath River ("segment 3" in the above referenced study report; "Upper Klamath River" in the Redding RMP) meets the eligibility and suitability requirements of the Wild and Scenic Rivers Act. This matter is addressed in the Klamath Management Area, Rationale for the Proposed Action, in the Draft and Final RMP.

COMMENT 36

BLM proposes management which emphasizes deer winter range and restoration of riparian areas. However, this area is adjacent to the Soda Mountain Area which is an Oregon BLM roadless area. Friends of the Greensprings, Soda Mountain Wilderness Council; and other groups have proposed a wilderness area for the area which includes the Horseshoe Ranch. We support the efforts of these groups to establish a wilderness area in this unique area which includes the Horseshoe Ranch. BLM needs to acknowledge and consider this important wilderness proposal in the Plan and FEIS. We urge you to develop a management strategy which excludes vehicle access, excludes grazing and preserves suitability for wilderness designation.

RESPONSE 36

The proposed action of the Final RMP restricts vehicle use and domestic livestock grazing. It is possible that portions of the Horseshoe Ranch area may possess wilderness characteristics in the future if BLM's rehabilitation pf tje area is successful and if a minimum of 5,000 acres of contiguous public land is managed by BLM.

COMMENT 37

SCOTT VALLEY:

BLM proposes disposing of all lands including a consolidated ownership on Quartz Hill and many sections on the Eastside (Duzel and Noyes Valley). Quartz Hill is an important resource. It provides habitat for a whole variety of wildlife species including the Spotted Owl and other sensitive raptors. Because of the importance of this area, either the final EIS or a project specific EIS would need to be completed prior to disposal. We are strongly opposed to selling off this important resource.

Rather we recommend selection of the "Enhancement of Natural and Cultural Values" Alternative for Quartz Hill. Selection of this alternative will maintain existing visual quality, ensure the long-term protection of deer winter range, protect raptors, protect historic values and provide for recreation. We believe Quartz Hill should become a demonstration area in which the BLM strives to demonstrate that some logging and mining can take place in a sensitive manner consistent with protection or enhancement of other resources.

We recommend and support a stewardship role on Quartz Hill for local organizations. We are aware that the Quartz Valley Indian Reservation has a strong role for this government organization should they so desire. If the Reservation folks are not interested in such a role, Marble Mountain Audubon would be happy to help establish an independent organization for this purpose.

Making Quartz Hill available for exchange is inappropriate. As the document itself points out in an earlier section, Quartz Hill in the recent past had a nesting site for one pair of northern spotted owls and three young. While the document claims that there is insufficient habitat to support the Spotted Owl, no data is provided to support this conclusion, and the apparently continuous sighting of a Spotted Owl on Quartz Hill over the last ten years belies this conclusion. The claim that the Owl will "migrate" elsewhere obviously ignores the fact that the threat to this species has been caused by the destruction of its habitat: there is no replacement habitat for it to migrate to.

Moreover, Quartz Hill contains a high concentration of recorded historic archaeological sites, and areas culturally significant to the local Native American Community. (See Pages 2-4, 2-5). Finally, there is no evidence that BLM has thoroughly investigated the presence of other spotted owls in the area. Instead of exchange, BLM should manage the area to enhance its natural and cultural values or should pursue a joint management plan with a local conservation group.

RESPONSE 37

The proposed action for the Scott Valley Management Area has been changed to maintain public ownership in the Quartz Hill vicinity. As noted in Chapter 3 under the Administrative Adjustment Alternative (Map 3-1b) and the Rationale for the Proposed Action, BLM is sincerely interested in collaborating with a stewardship group to protect these locally significant values. BLM has established a five-year period beyond thee Record of Decision of the RMP to develop this collaborative effort.

If a cooperative management approach is not feasible, the public lands would be used to acquire higher public values elsewhere. As noted in Management Guidance and Decisions Common to All Alternatives (refer to Cultural Resources, Lands and Realty, Special Status Species, and Spotted Owl), BLM is obligated to fully consider a host of resource values prior to disposal of public land via exchange. Patent restrictions or conservation easements may be required is some instances. In cases where protection of these values is doubtful, BLM may abandon the action or may proceed only if the overall impact is beneficial, e.g. disposal of fragmented spotted owl habitat for critical habitat elsewhere.

COMMENT 38

SCOTT VALLEY:

As to all of the lands proposed for transfer or exchange, the document inadequately described the lands, and the likely impacts and rationale for exchanging them. The document does not investigate the alternative of negotiating rights of way with surrounding landowners or attempting to make exchanges within the MA (especially Noyes Valley) to consolidate BLM ownership.

The specified lands to be sold, exchanged or transferred to other public agencies (Page 3-18 II(A)-(F)) are described inadequately, it at all, and the likely impact of such sales is not addressed.

SCOTT VALLEY MANAGEMENT AREA: [Commentor] strongly opposes the Administrative Adjustment alternative proposed for the Scott Valley management area. The RMP/EIS clearly documents important public resources values - such as critical spotted owl habitat at various sites and cultural resources at Quartz Hill - which must be maintained in public ownership.

Disposal of spotted owl habitat in this area contravenes the recommendations of the Interagency Scientific Committee (Thomas, 1990) and probably violates the habitat protection requirements of the Endangered Species Act. Transfer to the Forest Service should only occur if this agency agrees to maintain the habitat. All public lands with potential spotted owl habitat should be retained and adjacent private land areas delineated by the Interagency Scientific Committee as HCA C-46 should be acquired.

We support adoption of the "Enhancement" alternative for this area. Areas with high habitat and cultural values should be withdrawn from mineral entry or limited with no surface occupancy.

[Commentor] is against the sale of public land in the Scott Valley Management Area because it opens it up to private hunting clubs and reduces the wintering deer in the area.

RESPONSE 38

As noted in the response to Comment 37, BLM must comply with laws and policies designed to consider cultural resources and special status species. Also noted in the response to Comment 37 is the willingness to collaborate with local group(s) in the long term stewardship of Quartz Hill to protect locally important values. One of the objectives of the proposed action of this Final RMP is to enhance the (relatively poor existing) habitat for northern spotted owl at Quartz Hill.

As noted in Chapter 3 under the Rationale for the Proposed Action for Scott Valley, BLM does not reasonably expect that acquisition attempts would be successful. The existing public lands represent a minority interest scattered among relatively large private holdings. Acquisition of private interests including easements to provide access are unlikely to occur during the lifespan of the RMP. Indeed, landowners are willing to purchase the minority public land interests to eliminate trespass problems. Also, stated in the Rationale for the Proposed Action is BLM's determination that disposal via exchange of these vestigal remnants of public domain will not adversely impact deer winter range habitat due to low intensity land uses and the existing use of conservation easements. Moreover, consolidated public lands elsewhere will more than compensate for any loss of public hunting opportunity.

In regard to spotted owl habitat, BLM has identified one parcel of public land to transfer to the Klamath National Forest to be managed in concert with a habitat conservation area. No BLM administered public lands within the Scott Valley Management Area fall within habitat conservation areas identified in Thomas (et.al.) report of 1990. Moreover, no BLM administered lands fall within the areas identified in 1991 by the U.S. Fish and Wildlife Service as critical habitat areas. BLM has updated Chapter 2 of this document to reflect new inventory information about northern spotted owl within the Scott Valley Management Area. The quality of this fragmented habitat and reproductivity potential for the northern spotted owl will be considered under Section 7 of the Endangered Species Act prior to exchange of these residual public lands.

COMMENT 39

[Commentor] was concerned about acquisition of their ranch in the Shasta Valley Wetlands and did not want their way of life threatened. She feels that the public will tear up the land with vehicles and over-hunt. [Commentor] hopes that BLM is not pressured by "headquarters" and environmentalists to take this land. They have not permitted waterfowl hunts for the last four years due to drought and have some grazing land fallow due to overgrazing by former lessee. Most of her land is basin/hills and fair grazing with alkaline flats. Most water is made available by excavation.

You have included in your draft for the Shasta Valley Wetlands parts of Sections 9, 10, 11, 14, and 15. T. 44N. - R. 5W.

On Section 15 - T. 44N., R.5W., there is "Cedar Lake". This "lake" is not native Wetlands. It has been created over the years by the [owners] allowing water to run there to leach out the Alkali. If this was not done it would be nothing but an Alkali flat.

Most of Section 15 - T. 15 - T. 44N, R. 5W and all of our land located South and West of the Big Springs County Road has no water or "Wetlands". It consists of volcanic rock, juniper trees and sage brush. How can you possibly classify it as native wetlands?

RESPONSE 39

Based on information provided by the public in response to the Draft RMP, BLM has reduced the size of the proposed wetlands area to exclude non-native wetlands and agriculture soils of any large areal extent. Although man made wetlands are of prime importance to many wildlife species,they are not what BLM has proposed to acquire. The BLM is only interested in unimproved lands and **available land (willing seller). BLM only has condemnation authority to gain access, except where a parcel of land has been** specifically identified by the U.S. Congress for acquisition.

The second part of this comment indicated a concern that BLM already had more than enough land in the Siskiyou County. It is not BLM's intent to acquire additional lands in Siskiyou County, but to exchange existing public lands for native wetland areas.

COMMENT 40

When one looks at a map of Siskiyou County and sees all the area that is already part of a government entity, we can't help ask, why more land?

It is our feeling, that the local, state and Federal Governments now control more land in Siskiyou County than is necessary to fulfill their governing functions, and that no

further land should be taken off of the county tax rolls by these government entities.

RESPONSE 40

The federal ownership of land that is managed by the Bureau of Land Management in Siskiyou County is being repositioned. If the Plan is fully implemented for the area, BLM will be managing approximately 13,070 acres less in Siskiyou County than it currently does now. More land will be put on "the county tax rolls" than taken off.

COMMENT 41

There is an inadequate explanation given by the RMP/EIS of the impact of exchanging the large tracts of BLM land between the Recreation Area and Redding/Central Valley (R. 5W. - R. 6W. to T. 31N. to T. 33N). A full inventory of the public values of these lands should be created and the impacts of such exchanges should be addressed before making the parcels available for exchange. Most critically, the impacts of allowing private or local government ownership of lands near the Recreation Area and in the Keswick to Sugarloaf Axis area (near Clear Creek) should be explored. A conclusory incantation of "low public value" is not sufficient to meet NEPA's requirement of high quality information.

It may make sense to sell off other BLM parcels in Scott Valley because they are scattered. We will support disposal of these areas providing the money is earmarked for important purchases within the Redding Resource Area. However, prior to any disposition these parcels need to be adequately surveyed for rare, endangered, threatened and sensitive wildlife and plants. Disposal must be analyzed either through an EA or EIS. The Eastside of Scott Valley is home to golden eagles, prairie falcons, mountain lions and an important deer herd.. Prior to disposition the impacts of disposition on these wildlife and botanical values should be assessed in an environmental document. Areas important for rare and sensitive plants and wildlife should be retained or transferred to a public or private agency with a commitment to protecting these values. The Final Plan and FEIS should detail the process to be followed in property disposal including what field work, environmental documentation and decision making procedures will be followed.

My major concern is the RMP's lack of specificity regarding parcels of land to be transferred, exchanged or sold. I believe NEPA requires that the parcels be specified or that the criteria which would bring about any of these alternatives.

I generally support the policy of exchanging scattered, difficult to administer parcels which do not possess significant resources for higher resource areas elsewhere.

I believe that no parcels with significant natural or cultural resources (critical habitat, high scenic value, riparian areas, etc.) should be exchanged or sold.

Further, all parcels to be exchanged, etc. should be identified in the final RMP.

RESPONSE 41

BLM is required to comply with the National Environmental Policy Act (NEPA) in all disposal actions, which means appropriate inventories and analyses will be done prior to approval of any particular exchange or sale. The Draft Resource Management Plan sets forth general guidelines for proposed disposals in Chapter under Management Guidance and Decisions Common to All Alternatives. Actual disposal actions will be to NEPA and Federal Land Policy and Management Act standards. The necessary documentation is public record and may be inspected for the requisite compliance. In regard to lack of specificity of what parcels would be available for exchange, maps in this Final RMP identify the future use of each parcel by each land use management alternative. A note has been added to each map to ensure that the public is aware of potential disposal via exchanges.

COMMENT 51

The Trinity River is an exceedingly important resource that should be fully protected. We recommend a full-width Wild and Scenic Corridor as provided for in the statute. We also urge you to develop a separate Wild and Scenic River Management Plan for the Trinity River.

RESPONSE 51

There are no existing laws, known legal precedents, or U. S. Department of the Interior/BLM guidelines requiring the BLM to establish "full-width Wild and Scenic Corridor" (1/2 mile wide) along the Trinity River.

Section 4(d) of the National Wildland Scenic Rivers Act (NWSR) states: "The boundaries of any river proposed in section 5(a) of this Act for potential addition to the National Wild and Scenic Rivers System (NWSRS) shall generally comprise that area measured within one-quarter mile from the ordinary high water mark on each side of the river. In the case of any designated river, prior to publication of boundaries pursuant to section 3(b) of

this Act, the boundaries shall comprise the same area." Section 3(b) of the Act starts out by stating: "The agency charged with the administration of each component of the national wild and scenic rivers system designated by subsection (a) of this section...." The Trinity River was not designated a component of the NWSRS by section 3(a) of the Act. The Trinity River became a component of the NWSRS via section 2(a)(ii) of the Act. This involved the State of California designating the river as a State Wild and Scenic River and then petitioning the Secretary of the Interior to include it in the NWSRS, which he later did.

We must look to section 10(a) of the Act for guidance in establishing corridor widths for section 2(a)(ii) designated rivers. Section 10(a) states: "Each component of the national wild and scenic rivers system shall be administered in such manner as to protect and enhance the values which caused it to be included in said system without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values." It is BLM's responsibility to administer the public lands along the Trinity River in such a manner as to protect and enhance the existing NWSRS values. There are obviously varying degrees of protection and enhancement that the BLM can attempt to accomplish, yet still comply with the NWSRS Act. The range of alternatives presented in the draft RMP clearly shows this variety. Hence, BLM can vary the corridor width, as identified in the preferred alternative, to protect and enhance the NWSRS values.

The Management Guidance and Decisions Common to All Alternatives, Wild and Scenic Rivers section of the RMP has been expanded to include the following: "The Trinity and lower Klamath Rivers are existing components of the NWSRS. Specific comprehensive river management plans will be written for them, incorporating the decisions made in this RMP and existing resource specific management plans."

COMMENT 52

Big Chico Creek is the centerpiece for Chico's 1700 acre Bidwell Park. I was the project manager for 3 different bank protection/riparian restoration projects (2 funded by DWR, [California Department of Water Resources] one private) that restored over 700 feet of formerly barren banks. The City of Chico is actively expanding it's park currently pursuing a 1400 acre addition. Since BLM currently controls 20% of the stream miles, CA F&G [California Department of Fish and Game] has begun a spring run salmonid restoration program on this creek. It practically begs for inclusion and protection that Wild and Scenic status would bring.

RESPONSE 52

See # 14. BLM's mandated criteria, for determining National Wild and Scenic Rivers System eligibility, are outstanding remarkable characteristics associated with, and the free flowing nature of, waterways which cross BLM managed public lands. Resource improvements on non-BLM managed lands are not factors we can legally consider in making the eligibility determinations.

COMMENT 53

BLM should consider the lower stretch of Clear Creek (through mined area) for Wild and Scenic River designation to protect the restoration projects and the anadromous fisheries.

RESPONSE 53

The lower stretch of Clear Creek (valley segment in the RMP) has been evaluated for inclusion in the National Wild and Scenic Rivers System (NWSRS) and found to be not eligible due to a lack of outstandingly remarkable values on BLM administered lands. Most of this creek segment has been severely modified by placer gold dredging and sand and gravel mining. Protection of existing or planned fishery restoration projects is not a factor to consider in the eligibility determination process as these projects are not outstandingly remarkable.

COMMENT 54

I am very disappointed in your finding of ineligibility of Antelope Creek. I have found the lower Antelope Creek area below the confluence of the north and south forks to be very rewarding recreationally in a setting that is different from Mill and Deer Creeks while being of that same ecosystem. Antelope Creek is more similar to the foothills that are gentler and have been developed. Because of the nature of the Antelope Creek area and the demand for that gentler type of terrain, it is remarkable that there wasn't been more intrusion into the Antelope Creek area and even more important to preserve it from increasing pressures to develop that area. Antelope Creek is certainly an area with high caliber fishing, hiking, camping, botanizing, historical and general poking around values.

In conclusion, please find eligible the entire 16.5 miles of Antelope Creek.

RESPONSE 54

Antelope Creek has been evaluated for inclusion in the NWSRS and found to be not eligible due to a lack of outstandingly remarkable values on BLM administered lands. Please refer to Appendix A in this Final RMP.

COMMENT 55

In the case of Big Chico Creek, we recommend that the boundaries for the evaluation for wild and scenic river eligibility be extended upstream of Ponderosa Way, which is the most important holding area for salmon in the entire stream. The downstream boundary should be extended to the 5-Mile Recreation Area in the City of Chico.

RESPONSE 55

The Big Chico Creek study corridor is as it is described in Appendix A. This is the only portion of Big Chico Creek where BLM manages public lands.

COMMENT 56

With regards to Bear Creek, I have personally hiked the entire length of the proposed scenic corridor and I have found few places with as many special values. The fishery is one of the most diverse of all the North Sacramento Valley Creeks on the east side with bass, native rainbow trout, german brown trout, Steelhead trout, salmon and native minnows present. The vegetation is also one of high diversity with unusual brush species such as hop tree, flowering ash, and Philadephus mixing with more common brush species, and the bottom of the canyon contains species found typically at higher elevations such as ponderosa pine, sugar pine and incense cedar. There are known pictographs in caves and a known Yana Indian trail that connected the Bear Creek and Lack Creek drainages with the Cow Creek drainages. The close proximity of Highway 44 allows for easy public access. The North Fork contains significant fossils including a petrified log.

BLM should not trade or sell its parcels along Bear Creek, but instead they should support it as a scenic stream under the Wild and Scenic Rivers Act. The designation should be from the Highway 44 bridge upstream to the junction of the North and South Forks and then continue up the North Fork as far as Snow Creek. The designation should be from the canyon rim on the north to Highway 44 on the south as far as Dersch Road. The designation should be from canyon rim to canyon rim upstream from Dersch Road to the forks, and the North Forks portion should be to a distance of 50 yards on either side of the creek.

RESPONSE 56

Please refer to BLM's response to Comment 14 as well as the discussion of Bear Creek in Appendix A of this Final RMP. Because of the rugged nature of Bear Creek canyon, BLM determined that the study segment possesses outstandingly remarkable primitive recreation opportunities. However, there are no known outstandingly remarkable cultural, vegetation, or fisheries values on public lands in the Bear Creek study corridor.

COMMENT 57

Several stream segments have been incorrectly classified. Portions of the South Fork Battle Creek, North Fork Cottonwood Creek, South Fork Cottonwood Creek and Paynes Creek should be designated "Wild" rather than "Scenic". The RMP/EIS continuously refers to "proposed" eligibility studies for rivers and streams that have already been completed (e.g. Cottonwood Creek). The results of the eligibility determination should be included in the planning process. The document fails to indicate that Mill Creek and Deer Creek's eligibility for Wild and Scenic status is further supported by their important anadromous fisheries, including one of only two remaining native spring salmon runs in the State.

RESPONSE 57

These are preliminary classifications and are not to be construed as the final recommendations for classification status. The last phase in implementing the National Wild and Scenic Rivers Act (NWSRS) involves a suitability recommendation/EIS delivered to Congress, which would also recommend classifications of river segments. At this stage in the review process, BLM decided to look at overall stream segments and not try to "micro-classify" the different portions of already relatively short stream segments. This approach has a two-way effect: some portions of each river segment may be above, and others may be below the criteria for the classification of the majority of the river segment.

COMMENT 58

The RMP/EIS establishes river corridor boundaries for two rivers already designated as Wild and Scenic under Section 2 (a)(ii) - the Klamath and Trinity rivers. In order to exclude private lands, the corridors established for these rivers are variable.

The Klamath corridor between Iron Gate dam and river mile 181 is uniformly less than the standard 1/4 mile corridor. Downstream of river mile 181, the standard 1/4 mile corridor is established.

The Trinity River corridor is variable width, sometimes extremely narrow and sometimes more than the standard 1/4 mile width. Again, the intent is to avoid private land, as well as public parcels which have been subject to inadvertent trespass.

Section 3(b) of the Act requires river corridors average not more than 320 acres of land per mile. There is no indication in the RMP/EIS that this requirement has been met. In particular, the narrow Klamath corridor

downstream of Iron Gate dam does not appear to have been compensated by a wider corridor established elsewhere.

Although the Trinity corridor may meet the 320 acre per mile average because of its variable width, there is no information provided in the RMP/EIS to document compliance with Section 3(b).

[Commentor] strongly opposes the establishment of artificially narrow corridor boundaries for the Klamath and Trinity rivers. The intent is misguided and appears to violate Section 8(a) of the Act, which prohibits entry, sale or other disposition of public lands along Wild and Scenic Rivers. The fact that there is private land within 1/4 mile of a river's edge is not a valid reason to exclude that land by arbitrarily reducing the width of the corridor boundary.

As mentioned previously, many designated rivers have significant acreages of private land - this is not a conflict with designation, nor should it necessarily conflict with management. There are provisions in the Wild and Scenic Act to resolve private land conflicts with Wild and Scenic management.

The specific cases of trespass on the Trinity can best be resolved by leasing public lands which were inadvertently developed by adjacent private land owners to the parties involved, per Section 14(a) of the Act.

Section 3(d)(1) requires the development of a comprehensive management plan for designated rivers. In order to meet the intent of the Act, the "integrated resource management plan" proposed for the Klamath River corridor area must provide for the protection of river values. In addition, the existing or amended version of the Trinity River Recreation Area Plan must also comply with this section.

RESPONSE 58

Section 3(b) of the National Wild and Scenic Rivers System Act (NWSRS) does not apply to the Klamath or Trinity Rivers. Please refer to BLM's response to Comment 51.

BLM varied the proposed corridor width of the Trinity River to exclude approved existing developed land uses and include undeveloped public and private land interests. Please refer to the Rationale for the Proposed Action for the Trinity Management Area in Chapter 3 of the Draft RMP and this document.

The use of leasing is one option available to the BLM for resolution of trespass problems along the Trinity River. In some instances, outright sale may be preferred to resolve innocent survey related trespass.

Section 3(d)(1) states: "The [comprehensive management] plan shall be coordinated with and may be incorporated into resource management planning for affected adjacent Federal lands." The Management Guidance and Decisions Common to All Alternatives, Wild and Scenic Rivers section of the RMP has been expanded to include the following: "The Trinity and lower Klamath Rivers are existing components of the National Wild and Scenic Rivers System (NWSRS). Specific comprehensive river management plans will be written for them, incorporating the decisions made in this RMP and existing resource specific management plans."

COMMENT 59

[Commentor] strongly supports the intent of the BLM to solicit participation from other federal, state, and local agencies in suitability studies of eligible rivers. Although the Act and federal guidelines encourage agency cooperation, the lack of such cooperation should not be used as an excuse to fail to complete the suitability studies.

BLM must be realistic when it comes to cooperative studies. Local governments generally do not have the funding nor the expertise to assist in such studies. The State of California's Wild and Scenic Rivers System is largely self-administering, with no one agency designated as a river manager (although Governor Wilson has expressed an intent to change this deplorable situation). Other federal agencies, such as the Forest Service, have a strong interest in Wild and Scenic, but timely communication is required for effective coordination. It should be noted that key personnel on the Lassen National Forest were unaware of BLM's draft eligibility findings for Mill and Deer creeks as of mid-June.

In the final analysis, BLM must not allow suitability studies to be deferred indefinitely simply because they lack a local, state or other federal agency co-sponsor. BLM has the mandate under the Act to conduct such studies on mixed private/public rivers and must be proactive about completing the necessary suitability studies in a timely manner.

RESPONSE 59

The BLM must also be realistic in stating its capabilities due to budgetary and manpower constraints. The RMP identifies the BLM's strategy for conducting the

suitability phase of the NWSRS determinations based on these constraints.

On page 5-3 of the Draft RMP, we indicate that the Forest Supervisor, Lassen National Forest was sent a copy of the document. It was mailed in March of 1991. It is not known when or what "key personnel" in this National Forest had a chance to review the document, "as of mid-June". Moreover, BLM developed the eligibility determination and preliminary classifications of both Deer and Mill Creeks after consulting with the Lassen National Forest

COMMENT 60

Grazing on our public lands should be phased out and eliminated.

RESPONSE 60

Being a multiple use agency, BLM is mandated by the Federal Land Policy and Management Act of 1976 to manage public lands "in an manner that will provide food and habitat for fish and wildlife and domestic animals...". As long as livestock grazing doesn't conflict with other BLM land use plans or policies, this legitimate use would continue to be allowed.

COMMENT 62

BLM should take a pro-active stance in support of Wild and Scenic designation of Canyon Creek - which has been found eligible but not recommended for designation by the U.S. Forest Service. Little justification was provided by the Forest Service for its failure to recommend this important stream. Since BLM manages almost two miles of the lower portion of Canyon Creek, the RMP/EIS should recommend designation in order to protect Wild and Scenic values on BLM lands.

RESPONSE 62

In 1990, the U.S. Forest Service (without BLM input) determined all of Canyon Creek to be eligible for inclusion in the National Wild and Scenic Rivers System (NWSRS), via their Draft Environmental Impact Statement/Shasta-Trinity National Forests Land and Resource Management Plan. This creek is free-flowing and has a scenic quality rating of "A", which both the U. S. Forest Service and the Redding BLM consider to be an outstandingly remarkable value. Until a suitability study is accomplished, BLM administered public lands along Canyon Creek will be managed as if they were within a recreational component of the NWSRS.

COMMENT 63

Although impacted by past and present mining activities, lower Clear Creek should be managed to maintain its probably Wild and Scenic values (particularly anadromous fisheries and recreation). The proposed greenway along lower Clear Creek should encompass the standard 1/4 miles corridor. The BLM should retain public lands adjacent to the corridor which compliment the recreational, open space and ecological values of the greenway.

RESPONSE 63

Please refer to BLM's responses to Comments 14 and 53. BLM has determined to enhance natural values present along lower Clear Creek under the proposed action of this Final RMP. For additional information please refer to pages noted under "Clear Creek" in the Index of this document.

COMMENT 64

Lower Cottonwood Creek should be designated as Wild and Scenic. All existing public land should be retained and managed by the BLM and the corridor targeted for future acquisition.

RESPONSE 64

Please refer to BLM's response to Comment 14 and to the discussion of Cottonwood Creek in Appendix A of this Final RMP. Please also refer to the Rationale for the Proposed Action for the Sacramento River Area and the description of the Enhancement of Natural and Cultural Values alternative for the Sacramento River Management Area in Chapter 3 of this document.

COMMENT 65

The Middle and South Forks of Cottonwood Creek, as well as Beegum Gorge should be designated as Wild and Scenic. Private land within the river corridors should be acquired. No lands within the river corridors should be disposed. Transfer to the Forest Service should only occur if this agency agrees to protect Wild and Scenic values.

RESPONSE 65

Please refer to Appendix A. Portions of these waterways have been determined to be eligible for inclusion in the National Wild and Scenic Rivers System (NWSRS). As per the proposed action in the Yolla Bolly Management Area, no additional lands will be acquired along the various forks of Cottonwood Creek, absent inclusion into the NWSRS. Beegum Gorge will be transferred to the U.S. Forest Service. The U.S. Forest Service will be required to manage this public land as an interim components of the NWSRS, just as the BLM would.

COMMENT 66

The [commentor] applauds the BLM for its initiative in declaring twelve portions of streams and rivers as eligible for Wild and Scenic River status and fully supports the eligibility of these streams and rivers. How-

ever, BLM has failed to follow through on this excellent start in several important ways. It has failed to take the logical next step and perform suitability studies and recommend these eligible streams and rivers for inclusion in the Wild and Scenic River system.

RESPONSE 66

The Redding BLM has chosen to postpone the suitability studies on waterways determined to be eligible for inclusion in the National Wild and Scenic River System (NWSRS). This decision was made because of the complexity of preparing suitability studies/legislative Environmental Impact Statements on all of the eligible segments. The Redding BLM will have to budget ahead for such a large and time consuming undertaking and perform suitability studies when funding and manpower constraints allow. In the interim, public lands along waterways found eligible will be managed as if they were within a NWSRS boundary.

COMMENT 69

[Commentor] supports the adoption of one of the alternatives that calls for inclusion of the Centerville bridge to be within the boundaries of the Butte Creek proposal. The Helltown location as an alternative downstream boundary is too far upstream. The locally considered change point in Butte Creek Canyon from semi-tame to semi-wild is Centerville Bridge. We support the inclusion of Butte Creek into NWSRS. Many people have expressed an interest in seeing some sort of special status given to Butte Creek as far down as the Covered Bridge. Because of the tremendous beauty of this creek combined with the heavy recreational use for tubing, spring whitewater trips, and swimming - [commentor] strongly recommends that the Covered Bridge be used as a downstream border for the Butte Creek management area, inclusion in the NWSRS, or some other form of special designation.

RESPONSE 69

Please refer to BLM's responses to Comments 14 and 52.

COMMENT 70

There should be a discussion of the Trinity and Klamath corridors, development of corridors or where they are at in the National Wild and Scenic River System process.

RESPONSE 70

This information was available in the Draft RMP and is provided again in the Final RMP in Chapter 2 - Affected Environment and Chapter 3 -Management Alternatives Including the Proposed Action.

COMMENT 71

Designation for acquisition of private land along Wild and Scenic River should not happen if there is a low possibility of the lands being acquired.

RESPONSE 71

The BLM is presently actively pursuing acquisition of unimproved lands, from willing sellers, along the Trinity River.

COMMENT 72

Consider effect of Butte Creek Hydro on Wild and Scenic River designation. Shouldn't allow Hydro development on potential Wild and Scenic Rivers.

RESPONSE 72

The existence of the Butte Creek Hydroelectric project was considered in the National Wild and Scenic River System (NWSRS) eligibility study of Butte Creek and mentioned in Appendix A of the RMP. This project was authorized prior to the initiation of the Redding RMP process. It's presence does not preclude NWSRS eligibility of Butte Creek.

Waterways found to be eligible for NWSRS inclusion will be managed as components of the NWSRS system until the suitability issue is resolved.

COMMENT 73

All streams that support an anadromous fishery should be in the Wild and Scenic River System.

RESPONSE 73

There are numerous tributaries in the Sacramento and Klamath River drainages which host anadromous fisheries. It is our conclusion that just because a waterway supports some quantity of an anadromous fishery, it is not an outstandingly remarkable value. BLM lands on many of these creeks are not known to provide a significant portion of the total habitat. The Shasta River in Siskiyou County is a notable exception.

COMMENT 74

Because of impacts of past mining activities, Upper Clear Creek is not eligible for Wild and Scenic River status.

RESPONSE 74

The impacts of previous mining activities in the upper Clear Creek (canyon segment in RMP) have largely been erased by the forces of nature and the effects of time. The steepness of the canyon and narrow confines of the creek led to periodic flooding of the canyon bottom before the construction of Whiskeytown Dam. This flooding has obliterated most of the past effects of placer mining in the canyon. The established riparian vegeta-

tion along the creek's edge also camouflages previous mining effects. Please refer to the discussion of Clear Creek in Appendix A in this Final RMP.

COMMENT 75

Re: Middle Fork Cottonwood Creek. Designation as Wild and Scenic River will lead to greater publicity of canyon and the influx of new users will destroy the values we wish to protect. It is too hazardous for the public to use.

RESPONSE 75

If the Middle Fork Cottonwood Creek, or any other eligible waterway, is made a component of the National Wild and Scenic River System (NWSRS), then a River Management Plan would be prepared. This activity level plan would be implemented to protect the NWSRS characteristics of this creek.

The only criteria for determining eligibility of waterways for inclusion in the National Wild and Scenic River System are: free-flowing characteristics and the presence of one or more outstandingly remarkable values. The presence of both of these criteria on public land along candidate waterways is required for a determination of eligibility. The presence of possible hazards to human safety or the ability of the general public to visit the waterway are not considerations in the eligibility determination studies.

COMMENT 76

None of the studies creeks in the lowlands are eligible for Wild and Scenic status.

RESPONSE 76

Please refer to BLM's response to Comment 75 and to Appendix A.

COMMENT 77

Designation of Wild and Scenic River status may restrict the access of these streams to the elderly and handicapped.

RESPONSE 77

Please refer to BLM's response to Comment 75. BLM does not propose to restrict or eliminate any existing lawful access to eligible components of the NWSRS.

COMMENT 78

Because the canyon walls are too steep, Cottonwood Creek [Middle Fork] is not eligible as a Wild and Scenic River. Recreation use is not feasible. Cottonwood Creek Canyon and Beegum Gorge are dangerous for the public to use.

RESPONSE 78

Please refer to BLM's response to Comment 75.

COMMENT 79

General concern about the use of eminent domain to acquire public land for river corridors.

RESPONSE 79

The proposed action of this Final RMP does not propose the use of eminent domain to acquire lands for river corridors.

COMMENT 80

I would like to address the grazing program. Reseeding may be accomplished with introduced species according to the report. I strongly disagree with this action. Exotic species are extremely detrimental to natives. They tend to be annual, invasive, or poor use to wildlife, displace natives, and some species (such as Bromus tectorum) are extremely flammable. In general, ANY exotic will alter the ecosystem changing niche structure. I recommend the immediate discontinuance of all exotic reseeding for all projects (not just grazing) in the Redding Resource Area.

RESPONSE 80

The statement from this comment that recommends "the immediate discontinuance of all exotic reseeding for all projects (not just grazing) in the Redding Resource Area," would be impractical and cost prohibitive. The comment refers to a sentence on Pages 3-7 of the Draft RMP which states that "soil disturbance by range improvement construction will be reseeded with native and/or approved introduced species as soon as possible, unless it is determined to be unnecessary." It is the Redding Resource Area's desire to reseed with native species as much as possible. However, uncontrolled circumstances involving the unavailability of the proper native seeds, exorbitant seed costs and high erosion potentials require immediate responses. With no available native seeds or time to collect them, it would be necessary to select a pre-approved introduced grass species which meets the project needs and has minimal environmental effects. As native seeds become more available and costs become more reasonable, their utilization would also increase.

COMMENT 81

On Page 4-12 a statement claims that Redding Resource Area rangelands have livestock because they are "unsuited for other land uses and not because they are highly productive for livestock forage". This seems to say that livestock use is the only viable option here, or even a last resort. The report doesn't explain the other "land uses" that were not possible. Were water quality/quantity, native vegetation, soil, and wildlife con-

sidered as land uses? If so, I find it extremely unlikely that these designated rangelands had none of these resources present - therefore, opening them up to cattle.

RESPONSE 81

This statement does not say that livestock use is the only viable option or even a last resort. It's only referring to how some lands historically have become grazing lands. This is principally due to economics of the private sector after settlement. The Redding Grazing EIS, which is integrated into the RMP by reference, does consider native vegetation, soil, wildlife, rare, threatened and endangered plants, plus additional values. Water quality/quantity, though not directly addressed in the Grazing EIS, is being enhanced through other actions such as protecting riparian vegetation,residual mulch levels and soil stability, as well as those standards listed under Management Guidance And Decisions Common To All Alternatives - Water Quality.

COMMENT 82

I feel the "Desired Plant Community Definition" (Appendix B) is lacking detail. Does "retaining current diversity" include protecting exotic and/or invasive species? If so, I disagree with this goal. Also, I protest the goal of maintaining annual grasslands for livestock.

RESPONSE 82

The Desired Plant Community (DPC) was developed under the dictates of existing land use plans, mainly the Sacramento River Area Management Plan (SRAMP), which promotes multiple use with an emphasis on wildlife. It is not the goal of that plan nor this RMP to convert vegetation back to a pre-contact condition. The DPC intent is to meet the goals of the SRAMP while still protecting natural diversity and the native plant communities. Native vegetation is an important part of this area, so a statement has been added to the introductory paragraph of the DPC to emphasize native species more: Existing native vegetation levels would be maintained throughout this DPC, with some areas of enhancement and reestablishment.

COMMENT 83

There may be a few inaccuracies in the report. Appendix D, Page D-6, lists Draba

pterosperma as suspected to occur on BLM lands. I'm confident that this species is exclusively endemic to the ridge connecting Kings Castle and Marble Mountain in the Marble Mountain Wilderness Area.

RESPONSE 83

It is felt that BLM is showing great concern rather than "inaccuracies" as this comment states, by retaining this CNPS List 4 plant, Draba pterosperma, on our Special Interest list. Little is known about this species and having parcels that are near its known locations, it is wise to maintain this on our list.

COMMENT 84

We commend your plans to consolidate fragmented lands, but wish to caution that disposing of all sections on the east side of the Yolla Bolly would be unwise. It is an area of specialized serpentine plants and at least one large area should be protected.

Prior to sale or exchange of a parcel, a botanical survey should be made to determine whether any sensitive plant species populations are present. Should any populations be located, appropriate deed restrictions should be included to protect them.

RESPONSE 84

During our initial consideration of this area, a 160 acre parcel near Tedoc Mountain was recognized for its unique botanical values associated with serpentine soils. Under the proposed action, this parcel is being protected by transferring jurisdiction to the U.S. Forest Service to be attached to a larger area that is being proposed as a Special Interest Area for these same values.

Before any lands can be disposed, surveys will be conducted for special status plants and other values. Proper consideration will be given these values and determinations made based on BLM policies require the BLM to conserve federally and State-listed rare, threatened, or endangered plants and to utilize its authorities in furtherance of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.), and similar State laws.

COMMENT 85

We know how difficult it is to reduce grazing allotments but we hope this will be part of a long-term plan so rare plants and valuable habitat can be adequately protected.

RESPONSE 85

This is already a part of our policy to protect rare plants and valuable habitats. We are currently monitoring all known locations of Special Status Plants to determine this very thing. Recently, 700 acres were removed from a grazing lease along the Sacramento River to protect wetland habitat.

COMMENT 86

Commercial use of BLM land should pay its own way without help from the taxpayer. For that reason I am

opposed to subsidized livestock grazing on BLM land; while ranchers may have a historic right to use this land, they should pay market prices for that right.

RESPONSE 86
The Redding Resource Area has no control in setting or changing the grazing fees. These are established annually by the Secretaries of Agriculture and the Interior, using a formula set by Executive Order (12548) which is based on the Forage Value Index, the Beef Cattle Price Index and the Prices Paid Index. Currently, new legislation has been introduced which proposes to adjust these fees to better reflect fair market value.

COMMENT 87
Appendix D (Special Status Species, Page D-1) contained several errors and should be changed as follows:

Species Common Name Federal State

Status Status

Cocccyzus americanus Yellow-Billed Cuckoo NE

Empidonax traillii Willow Flycatcher NE

Gulo gulo Wolverine NT

Hydromantes shastae Shasta Salamander NT

Plethodon stormi Siskiyou Mountain Salamander NT

Strix occidentalis caurina Northern Spotted Owl TN

Vulpes vulpes nector Sierra Nevada Red Fox NT

Chamistes brevirostris Shortnosed Sucker EE

We recommend that the DRMP/DEIS be revised to reflect our concerns, evaluate our proposed wildlife alternative and bring the document into compliance with NEPA.

RESPONSE 87
Errors in the Special Status Species have been corrected in the final Document.

COMMENT 88
Fencing and fence maintenance should be a priority with provisions for financial commitment of material and labor by BLM and/or California Fish and Game. [Pertaining to the Horseshoe Ranch area in Siskiyou County]

RESPONSE 88
BLM has contributed moneys in the past for fencing and fence maintenance and is currently surveying fences to assess maintenance needs. BLM will continue to contribute moneys for this purpose. As to the type of priority this should take, its something that will not be addressed in this document, but covered in the next level of planning - the activity plan.

COMMENT 89
I propose that studies be conducted to prove site specific detrimental use of these areas by livestock and exhaustion of alternatives before they are closed.

If necessary to close these areas, public agencies responsible for closure should plan and budget for construction and maintenance of necessary fencing and/or develop cooperative plans with adjoining landowners based on the customs and laws of the area.

RESPONSE 89
These suggestions are already BLM policy and we are mandated to carry them out.

COMMENT 90
We believe grazing to be a beneficial tool to wildlife habitat management. We request wording that does not restrict AUM's to exclusive use by wildlife, but rather leaves options open for effective domestic livestock grazing management to enhance wildlife habitat.

RESPONSE 90
The request made in this comment was incorporated into the proposed action of the RMP for areas where wildlife is the principal objective, e.g., Horseshoe Ranch in Siskiyou County.

COMMENT 91
We also are disappointed that the topic of livestock grazing is ignored in the EIS. Since more than 20 percent of the Resource Area is grazed, the issue is not trivial. It is specious to argue that there is little significance to grazing since the Resource Area produces less than one percent of the total region. Grazing has significant impacts; trampling by cattle is known to increase soil compaction, and to contribute to streambank erosion, sedimentation, widening and shallowing of channels, and physical destruction of vegetation. Considering the number of rare plants and animals in the Resource Area, the EIS is not complete without an analysis of the impacts of livestock grazing and alternatives that eliminate grazing entirely.

RESPONSE 91
Livestock grazing was not "ignored" in the draft RMP/EIS. It was considered as an impact topic but

dropped for the reasons listed in Chapter 1. Under the topic Management Guidance And Decisions Common To All Alternatives, located in Chapter 3, it states that Redding RA would continue to follow the Decisions and Actions set by the Redding Livestock Grazing Management EIS which was approved in 1984. Much of the specific guidance from that document is included in this section. Also in the Grazing EIS, significant impacts of livestock grazing were analyzed and alternatives presented which included one that proposed the elimination of grazing entirely. New management guidance for the grazing program can also be found in the RMP/EIS along with many references and supporting data.

COMMENT 92

Both the U.S. Fish and Wildlife Service and the California Department of Fish and Game need to be contacted regarding possible effects from a proposed project on rare, threatened, or endangered species.

RESPONSE 92

These suggestions are already BLM policy and we are mandated to carry them out.

COMMENT 93

Parcels surrounded by a single ownership, grazing operation should be considered manageable unless the grazing operator refuses BLM access.

RESPONSE 93

The manageability criteria set in this document does not exclude these types of parcels and it is very unlikely that access would be denied to the BLM if the operator is requesting a lease. If access were denied to BLM, a lease would likely be denied.

COMMENT 94

I have also visited the BLM parcels between Black Butte Road and feel that these lands should be retained by BLM in order to protect the McNab Cypress found there and the permanently flowing section of Lack Creek with its native minnow population. One last BLM parcel, that I have visited is situated along the North Fork of Battle Creek where the creek drops down the Shingletown Ridge. This is probably the northern most limit on the east side for the California Nutmeg, and it should be retained by BLM because it profiles a transect of vegetation changes from the Sierra-Nevada mixed coniferous forest to the blue oak woodland in a very short distance, because of the extreme elevation change.

RESPONSE 94

The information you supplied us on the natural values of several parcels located in the Ishi Management Area is appreciated and was useful in the assessment process determining which public land parcels should be retained. See also Comment 84.

COMMENT 95

I also urge BLM to institute Alan Savoury's Holistic Resource Management (A. Savoury, 1988) as BMPS for grazing generally to restore and improve productivity of grazing lands.

RESPONSE 95

The RMP and its supporting documents do not discourage the use of new and improved grazing management techniques such as Holistic Resource Management (HRM). These techniques have been used and will be utilized when Allotment Management Plans designate their use. Due to the many small sized leases in the resource area, HRM would usually have to be something that is initiated by the lessees and started on the private base property. BLM cooperates to help meet these objectives.

COMMENT 97

Oaks should be protected according to the "Hardwood Retention Guidelines".

RESPONSE 97

Most public lands managed by the BLM are managed under a multiple use concept which does not always favor a single resource use. In these areas it is BLM's policy to protect oaks in all areas, according to the Oak Management Guidelines developed by the Resource Area and located at the Area Office.

COMMENT 98

Grazing allotments on public land should be eliminated in those areas where private land owners refuse to allow public access to public land or access rights-of-way should be taken through eminent domain.

RESPONSE 98

This request is contrary to BLM policy.

COMMENT 99

Grazing allotments which have not been used recently should be eliminated.

RESPONSE 99

This comment is already BLM policy and can be implemented if reasons for non-use are invalid.

COMMENT 100

Overall [the commentor] supports the BLM's intention to protect special resource values in the Redding Resource Area, however, we are concerned that the plan as drafted does not address the requirement in FLPMA for protecting the already existing bio-diversity found on the public lands being reviewed in the plan. This is

especially true because of the large amount of land that is proposed for transfer from BLM to private ownership through either sale or exchange. The plan only discusses species that are listed as threatened or endangered on various official government lists as reasons for retaining a parcel under Federal Government ownership. There is no discussion regarding the need to retain examples of all the different plant communities and all of their different species combinations under public ownership.

The plan should include a discussion concerning biodiversity as a whole. This discussion needs to make it clear that the resource area will retain under BLM management sustainable amounts of all of the existing plant communities found currently on the public lands covered in the plan. There also needs to be consideration for sustaining all of the various different species combinations that are included within a given defined plant community. By including such a section and protection process the plan would clearly meet the FLPMA requirement for biodiversity protection. I would like to point out that such a detailed review will also provide for protection of most animal species, both vertebrate and invertebrate, currently existing on these BLM lands. Only by keeping a full compliment of biodiversity in public protection today will we prevent more species from becoming threatened or endangered in the future.

RESPONSE 100

A major emphasis of the Draft RMP was to consolidate public land ownership in areas of high public value including areas of regionally significant biological value, e.g. Sacramento River, Trinity River, Klamath River, Shasta River, Shasta Valley, Deer Creek, Butte Creek, Horseshoe Ranch, etc. Correspondingly, tracts of scattered public lands with unknown or, perhaps, locally important values were identified for disposal via exchange to acquire these above significant values. Although a ..."large amount of land...is proposed for transfer from BLM to private ownership..." a roughly equal larger amount of private land is identified for acquisition. In addition, BLM is obligated to ensure the full consideration of special status species (including candidate species) as noted on Pages 3-6 and 3-12 of the Draft RMP. Overall, BLM is taking an affirmative step to meet the policy of the Federal Land Policy and Management Act of 1976 (FLPMA) as defined in Section 102(a)(8):

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 archaeological 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.

Although FLPMA does not mention "biodiversity", the policies of BLM and the proposed repositioning of public lands are clear evidence of the agency's intent to conserve species and communities representative of the planning area. In addition to refugia, e.g. Baker Cypress and Orcuttia Research Natural Areas, BLM has identified corridors and areas which will protect and enhance biological connectivity within the region for years to come.

COMMENT 103

Desired Plant Community for the Sacramento River Area - Annual Grasslands: We believe that this goal should also address the potential for establishment of native perennial grass species. Also, areas could be identified that contain native perennial grasses that could be fenced and/or managed in a way that enhances growth of these species. The plan standards expect that at least 675 lbs./acres of residue mulch shall be left at the end of the grazing season. For most of the grazed areas this should be sufficient for erosion control and resource protection. However, steeper and heavy use areas may need more residue. Perhaps a better measure of resource use would be to measure the time livestock graze and provide adequate rest for plants rather than just residue.

RESPONSE 103

The comment pertaining to native perennial grasses was covered in BLM's response to comment #82. The response to the second part of this comment is as follows: Grazing is already being regulated by setting numbers of livestock & specific times that they can utilize the forage. These numbers are designated to protect the vegetation's health and assure continuance of these species. Modifying these numbers and periods can occur if monitoring data show that management objectives are not being met.

COMMENT 104

Desired Plant Community for the Sacramento River Area - Annual Grasslands: We also suggest that percent cover is a good measure of residue protection left on the ground. However, 675 lbs./acres could not come close to the stated goal of 85 percent or more ground cover. We believe 675 lbs./acre residue would be more close to 40 to 50 percent ground cover.

RESPONSE 104

These comments have been considered and changes to the Final RMP have been made as noted in Appendix B of this RMP.

COMMENT 105

Please note that air quality, hydro-electric development, water quality, the protection of ecological communities, and mitigation of past abuses must be considered in this RMP, or it will be contested.

RESPONSE 105

The topics of air quality, hydro-electric development and water quality were assessed for treatment as significant impacts topics and dismissed from further analysis in Chapter 1 of the Draft and Final RMP. Management decisions and guidance common to all management alternatives are discussed in Chapter 3 for these and other resource values. Specific resource condition objectives include the improvement of water quality in several areas, e.g. Grass Valley Creek and Shasta Valley Wetlands. Similarly, protection and enhancement of ecological communities is a common resource condition objective in many areas covered by the RMP. Moreover, some species are specifically identified for protection to ensure the continued diversity of species within the planning area. Finally, BLM has recommended measures to ameliorate the consequences of past human actions in certain areas, e.g. Minnehaha Mine and Grass Valley Creek. There is no statutory obligation, however, for BLM to provide for the "...the mitigation of past abuses..." (please refer to Section 202 of the Federal Land Policy and Management Act of 1976).

COMMENT 106

[The commentor] urges [BLM] to include the acquisition of Grass Valley Creek Basin in your revision of the Redding Resource Area Management Plan (RMP). State and federal actions underscore the need for fisheries restoration in the area: in 1988, the California legislature called for a doubling of the state's salmon and steelhead populations by the year 2000, primarily through habitat restoration (CA Fish and Game Code, Section 6900). The federal Bureau of Reclamation has just announced plans to release a large portion of its "hardship" drought supplies for Trinity River salmon to maintain the viability of current restoration efforts on that river. The Bureau of Land Management can take an important step toward supporting state, federal, private and tribal restoration efforts by including acquisition and restoration in its RMP.

Logging practices and development in the basin have caused runaway sediment problems and resulting degradation of spawning beds of the creek and the Trinity River. A fisheries restoration program cannot be successful without control of these sediment problems. Current efforts to alleviate these problems - specifically, a $19.5 million sediment retention dam - provide only partial, short-term relief, leaving the source of the problem untouched. Acquisition addresses that source, allowing appropriate land-use practices that could significantly extend the life and effectiveness of the dam.

Because of the richness of the habitat in this forested basin, acquisition could provide a wealth of other benefits, including improved recreation opportunities and protection of biological diversity and endangered species. The extent and lasting nature of these benefits make acquisition the most cost-effective approach to responsible resource management in the basis.

RESPONSE 106

On September 12, 1991 and February 13, 1992 the BLM joined in the majority on a vote by the Trinity River Task Force to support the acquisition of Grass Valley Creek watershed by a public agency or non-profit organization. The Trinity County Board of Supervisors had passed an earlier resolution supporting acquisition as well. Acquisition of this watershed had been considered by BLM in developing the Draft RMP, however, acquisition and management by BLM had been rejected in land-use management alternatives as unrealistic based on continuation of the existing agency budget.

We have modified two land-use management alternatives including the proposed action to support acquisition of this watershed by a public agency in response to the significant interests of the public and all levels of government to stabilize the erosion of this critical area. We have also provided an opportunity for BLM administration of this watershed dependent on the allocation of sufficient monies to acquire, rehabilitate and manage the area.

COMMENT 107

Regarding land sales or exchanges, it appears far more land may be disposed or than shown in the Draft. You should identify all possible sales and exchanges that would take place during the life of the Plan.

RESPONSE 107

The maps that accompany the plan portray, and the text of the plan describes, all of the public lands and the status placed upon them by the proposed action and its alternatives, i.e., retain, suitable for exchange, R&PP, or withdrawal to another federal agency. Once the plan is finalized, no disposal actions or acquisitions that are not shown or described in the plan will occur on the public

lands without a plan amendment or modification. Please refer to Table 4-1 and (specific to Siskiyou County) Appendix H of this RMP for additional information.

COMMENT 109

We have classified this DEIS as EC-2 - Environmental Concerns - Insufficient Information (See enclosed "Summary of Rating Definitions and Follow-Up Action"). Our EC rating reflects our concerns that the Resource Management Plan does not include a program to monitor water quality or soil conditions and ensure the quality of these resources. Our 2 rating reflects the need for additional information regarding existing conditions of these resources as well as information regarding how special management areas such as wetlands and riparian areas would be protected, enhanced, or improved. Our detailed comments are enclosed.

RESPONSE 109

The Redding Resource Area manages a land pattern that is quite fragmented, consisting of small blocks of lands scattered through-out a vast planning area. These Public Lands comprise a minor fractional part of virtually any land type and watershed with many of the concerns that deal with water quality and soil resources originating off-site on adjacent lands. Early in the RMP stage, water quality and soil conditions were assessed and determined that the decisions made in this document would have no significant negative impacts on regional water quality of municipal water supplies or degradation of any particular watershed nor significantly degrade nor remarkably improve soil stability and conditions within the planning unit.

Due to these unique conditions of the Resource Area, Redding has developed close working relationships with other federal, state and local agencies to meet our goals and objectives, as well as theirs, for these resources. Such agencies as the State Water Quality Control Boards, State Water Resources, State Fish and Game, U.S. Soil Conservation Service, U.S. Bureau of Reclamation, and the U.S. Forest Service are some that we have coordinated with and are still working with. Many of these are already monitoring areas within our jurisdiction and in some cases, have taken on the lead through agreements to assess conditions in areas involving our lands.

Our Resource Area has and will continue to monitor for water quality and soil conditions. This program is based on monitoring standards which have set criteria and guidelines and has defined what low, moderate and high sites of concerns are for the purpose of determining where monitoring should be conducted. Techniques to carry this out have been taught through annual Water Quality workshops by Water Quality Control Board personnel, private testing firms, and the District Soil Scientist.

Annual monitoring is currently being conducted throughout the Resource Area. Residual mulch levels, set in the Redding Grazing EIS, are directly related to soil retention and water quality. These are checked on grazing leases along with visual checks for problems areas. Soil movement and loss is being measured on our OHV area (see response to comment #207) and controlled burns & wildfires are being monitored several years afterwards to assure proper healing. Random watersheds are monitored for areas of concern and pre and post monitoring is being conducted on site specific actions such as right-of-ways, mining activities, and timber sales.

The monitoring program that we are conducting is not as intense as suggested in the comment. Monitoring has been limited through budget constraints. When needs and priorities are recognized, then the intensity of monitoring would increases to meet these needs. As the proposed action of this RMP is implemented and activity plans are written, monitoring would be a part of those processes. The budgetary process will reflect actions necessary to maintain and improve water quality and soil conditions.

Best management practices and site specific actions are too specific in nature to be dealt within this RMP. They will, however, be dealt with in the activity plans.

Revisions to Chapter 3 of the Final RMP/EIS have been made to help clarify statements in response to your comments.

COMMENT 110

The proposed project area includes, but is not limited to, State sovereign lands within the Sacramento River. Additionally, the project area contains State-owned School Lands, Lieu Lands, and patented lands in which the State has reserved a minerals interest. Specific development involving such lands should be reviewed by the State Lands Commission (SLC) to ensure that such development is consistent with State interests.

RESPONSE 110

When working on our activity plans, we review land status and ownership. If there are State lands involved we will consult with the appropriate state agencies. We have consulted with various State agencies in the past

concerning our activities on the Sacramento River, and we will be coordinating more as we progress.

COMMENT 111

We have reviewed the Draft RMP and believe that it is inadequate because (1) the alternatives described do not reflect the full range of options with respect to individual land management activities and (2) impacts on only some "significant" resources are evaluated. The alternatives presented include: No Action, Administrative Adjustment, Enhancement of Natural and Cultural Values, Resource Use with National Values Consideration, and Resource Use, (Pages 3-96 and 97). Incorporated in each of these alternatives is some specified level of management for (1) timber harvest, (2) grazing, (3) recreational development, (4) mining, (5) oil and gas exploration and leasing, and (6) fish and wildlife. We believe that the plan should include alternatives that separately evaluate BLM land management for each of these six purposes.

RESPONSE 111

The purpose of analyzing environmental consequences is to critically assess the impacts of implementing any of the land use management alternatives. These alternatives were designed to address the four principal planning issues, i.e., public land ownership (patterns), recreation, access, and public land forestry.

BLM is mandated under Section 103(c) of the Federal Land Policy and Management Act of 1976 (FLPMA) to manage public lands in a "multiple use" manner. It would serve no purpose for BLM to develop single-use management alternatives or the corresponding analyses of expected environmental consequences (refer to Page 3-1 of the Draft RMP).

Pages 1-5 through 1-11 of the Draft RMP discuss why certain topics were dismissed from further consideration for impact analysis. The seven significant impacts were analyzed using a set of assumptions for actions which BLM expects could reasonably occur on public lands during the next fifteen years.

COMMENT 112

The plan needs to describe significant impacts for each alternative and propose mitigation measures for each impact. All significant impacts, including cumulative impacts, needs to be assessed. The plan presently assumes that the only significant impacts of the land management activities will be to anadromous fish habitat, archaeological resources, deer winter range, scenic quality, slender orcutt grass, spotted owl, and wetlands and waterfowl (Page 5-1). However, proposed land management activities can also be expected to have significant impacts on (1) resident fish and their habitat; (2) anadromous fish, as well as anadromous fish habitat; (3) numerous species of wildlife, not just deer winter range, spotted owls, waterfowl and wetland habitat; and (4) many plants, not just slender orcutt grass. To meet the requirements of the National Environmental Protection Act (NEPA), we believe that all significant impacts must be identified and mitigation measures discussed for alternatives that represent the six management purposes.

RESPONSE 112

Please also refer to response to Comment 122. Mitigation measures designed to reduce, alleviate or avoid significant environmental impacts have been incorporated into the land-use management alternatives for each management area. Many of these mitigation measures are noted within Management Guidance Common To All Alternatives and in the Land Use Allocations sections found within Chapter 3. Any net unavoidable impacts will be evaluated during the life of the plan with plan monitoring. Where necessary, adjustments in specific actions, plan amendments, and plan modifications will be made to minimize consequential effects based on RMP monitoring.

COMMENT 113

The environmental analysis does not adequately consider fishery resources because (1) impacts to resident fish are not considered (Page 4-16) and protective measures for resident fish are not described, (2) only "key" anadromous fishery areas are considered (Page 4-16), and (3) protective measures involve only "Prohibition of mineral location, restrictions on size and type of mineral collection equipment and designation/management of critical salmonid habitat as Areas of Critical Environmental Concern..."(Page 4-17). We believe the resource management plan must (1) consider impacts on both resident and anadromous fish; (2) consider impacts to all stream areas including areas not on BLM land that could be impacted by BLM land management (e.g., siltation of downstream areas as the result of road building, timber harvest, mining, off-highway vehicle use, recreation or grazing on BLM lands) and (3) include protective measures to ensure that no adverse impact will occur on any stream area as the result of managing BLM lands for other purposes.

We find the DRMP compromises the fish and wildlife resources of several of the seven management areas in favor of acquiring lands in other management areas for other resource values.

RESPONSE 113

BLM manages approximately 180 miles of fish habitat in Northern California; these areas are widely scattered throughout 5 counties and consist of a very small percentage of the total habitat. In addition public ownership on most of these streams consist of very short segments that are influenced by actions taking place on the upper sections of these streams. Considering the limited amount of resident fish habitat and the limited control of these streams by BLM, it is felt that there are not any actions in the RMP alternatives that would significantly affect resident fish outside of those areas where both anadromous and resident fish habitat has been addressed in chapter 4 (DEIS). BLM has therefore determined that anadromous salmonid habitat is one of the significant impact topics. Resident fisheries, however, is dismissed (refer to Chapter 1). The commentor can find some satisfaction that implementation of the RMP would result in a threefold increase in public owned fisheries habitat.

It would not be reasonable to predict impacts from potential roads, timber harvest, and off road vehicle use until such action has been proposed on a specific site. In those areas where BLM activities are authorized current regulations, policy, timber harvest environmental analysis and the grazing EIS have proven to be sufficient to protect the fishery resource. In addition California Fish and Game regulations are enforced on public lands which provides additional protection for fisheries habitat.

Protective measures to ensure that adverse impacts would not occur on public land would be considered at the activity plan and project level basis.

COMMENT 114

The alternatives presented all include the favored resource user of timber and grazing even though the Redding Resource Area only manages one percent of the timberlands in the area and harvests only 0.4 percent of the timber annually.

RESPONSE 114

Forest and grasslands are two of the many resources managed in the Redding Resource Area as directed by the Federal Land Policy and Management Act of 1976. If these resources can be managed as renewable resources for the benefit of the public and in a way that is compatible with other resources then they should not be ignored. We are required by law and policy to ensure their proper consideration.

COMMENT 115

There is no discussion in the DRMP of the economic values of deer. The only economic values discussed are for forest management and livestock management. In March 1990, Economic Benefits of Deer in California: Hunting and Viewing Values was published by John Loomis, Michael Cecel and Joseph Cooper, Division of Environmental Studies and Department of Agricultural Economics, University of California, Davis. Using this report, the economic benefits of deer on BLM lands in the Redding Resource Area would approach the timber values.

RESPONSE 115

Economic benefits for deer were excluded in this document because the impact analysis for deer does not indicate significant increases or decreases in the deer populations.

COMMENT 116

Since fish and wildlife resource planning is a major issue (Page 1-5), an alternative needs to be developed that maximizes fish and wildlife resources in all the management areas as was done for other resources. The fish and wildlife resource management considerations are found throughout the alternatives for the seven management areas. Attached as an appendix is the Department's recommended fish and wildlife alternative for resource condition objectives only. We recommend BLM give strong consideration to adopting this alternative.

RESPONSE 116

Issues for this plan were developed through a series of public workshops that were held in Redding, Chico, Weaverville, Yreka and Red Bluff. Public input at these work shops and input through written comments did not indicate that wildlife concerns warranted being one of the four planning issues for this document. BLM did not "maximize" other resource values in contrast to fish and wildlife resources. In the RMP, BLM has made extraordinary commitments to protect and enhance fish and wildlife habitat in comparison to the current situation (No Action alternative).

COMMENT 117

Several watersheds in the Shasta/Trinity Management Area such as Grass Valley Creek, Indian Creek, Phillips Gulch, Clear Creek, Middle Creek, North Fork Cottonwood Creek and others produce large quantities of sediment which severely affects the anadromous fishery. However, the Redding Resource Management Plan (RMP) considers soil stability as a potential impact topic, but dropped it from further analysis. Existing and potential future sediment production on BLM land in

these sensitive watersheds would seem to warrant primary management consideration in light of the huge expenditures for the Trinity River and elsewhere to control sediment movement. Soil erosion is also a factor which negatively affects salmonid habitat and scenic quality, which are listed as primary impact items.

RESPONSE 117

BLM (Redding Resource Area) ownership in these watersheds is minimal.

Without control of a larger portion of these watersheds it is felt that soil erosion from public lands would not be significant, considering the current soil erosion control measures being used by BLM at the present time. Grass Valley Creek watershed is of regional (if not national) importance due to the sizeable sediment load it discharges into the Trinity River. The proposed action of the RMP has been modified in response to public comment to support rehabilitation of this critical watershed. In Indian and Clear Creeks, BLM ownership will remain stable and increase respectively. We would anticipate improved erosion control in these streams. In cases where BLM would consider disposal of public lands via exchange or transfer via the Recreation and Public Purposes Act, it is possible to protect stream corridors through (protective) rights-of-ways to local entities or through prudent local planning and development. Loss of minority BLM ownership should not adversely impact water quality in these instances.

COMMENT 118

A Coordinated Resource Management Plan (CRMP) has been established for Shasta Valley wetlands which joins private land owners with public agencies and organizations. This action addresses protection of Shasta Valley wetlands and does so without conversion of private land to public lands. The existence and function of the CRMP is not discussed in the RMP but provides significant "protection" of wetlands without land ownership conversion. Furthermore, several studies on Shasta River water quality, most recently initiated by local landowners, indicates an active concern about natural resource viability and results indicate no major nutrient or pesticide problems.

RESPONSE 118

The Shasta Valley CRMP was organized in late spring of 1991, well after the draft RMP was completed for publishing. The CRMP group has been mentioned in this Final RMP. Further, BLM desires to be a full participant in the group to help develop local solutions in cooperation with the private sector. Indeed, BLM is a major proponent of CRMP's throughout California.

COMMENT 119

While the RMP indicates exchange or disposal of "forest" lands for wetlands would be accomplished so as no net change in assessed value occurred across [Siskiyou County] as a whole, the plan does not address the cultural or economic impacts that could impact special districts, such as school districts, that may be converted from largely private ownership to districts principally held in public ownership. Removal of significant portions of Shasta Valley cropland (wetlands) could also severely hamper the agricultural infrastructure, indirectly impacting agriculture and the total county economy. That is, as productive cropland is removed, at some point, supporting agribusiness has too small of a unit to economically service; and thus seed, fertilizer, machinery, veterinary, accounting, and related support businesses close. This would adversely impact the county and residents since the proposed alternatives would likely provide fewer multipliers, but this point cannot be addressed since its analysis is not provided in the RMP.

RESPONSE 119

BLM has included within the Final Resource Management Plan, a discussion of impacts to the Siskiyou County Economy resulting from the proposed repositioning of public lands (Appendix H). BLM believes that the repositioning would have negligible impacts to the agribusiness industry as a whole. Cattle grazing would continue to occur on acquired public lands within the Shasta Valley area, and minimal amounts of suitable agricultural soil would be placed into public ownership.

COMMENT 120

Along these same lines, the RMP does not address the impacts of disposal or exchange of lands that may have different multiplier effects. For example, more intensively managed lands may have a larger spin-off or multiplier effect in the county [Siskiyou] due to related expenses such as for labor, equipment parts, power, machinery, and other items. Thus, BLM exchanged lands may have similar assessed values but conversion of private lands to public could indirectly, through multiplier effects, harm economic and cultural factors. This has not been addressed in the RMP

RESPONSE 120

BLM has included within the Final Resource Management Plan, a discussion of impacts to the Siskiyou County Economy resulting from the proposed repositioning of public lands (Appendix H). BLM believes that any agribusiness related multiplier impacts would be more than offset by recreational and forest product related multiplier impacts. As noted within

Response to Comment 119, cattle grazing would continue to occur on acquired public lands within the Shasta Valley area, and minimal amounts of significant crop land would be displaced from potential crop production.

COMMENT 121

The RMP also lacks a specific program for how the acquired lands are to be managed and what uses will be allowed. We have prior experience with public agencies acquiring private land and, because of budget restraints, are unable to properly administer their lands or make the improvements necessary in order to provide any beneficial public use.

RESPONSE 121

The Resource Management Plan is the first level of the BLM planning/budget process. Activity plans are subsequently designed to provide specific direction and measures for smaller geographic areas, e.g. the Horseshoe Ranch Wildlife Management Area. Finally, project plans are designed to implement the measures required by activity plans. Public input is part of the scoping process for both of these levels of subsequent planning. The Draft RMP specifies the resource condition objectives, land-use allocations, and management actions (Page 3-16) for a given area by land-use management alternative. These alternatives were developed to present "...a varying mixture of goals which can be accomplished under current funding levels", as noted on Page 3-1 of the Draft RMP.

COMMENT 122

Our greatest concern is that this EIS will be used to justify many management actions without sufficient additional environmental review. Considering the number of areas, number of issues, and number of alternatives, this EIS is far too superficial to consider adequately the environmental impacts of the proposed actions.

RESPONSE 122

The RMP and Environmental Impact Statement describes significant environmental impacts resulting from land use allocations and adjustments, programmatic decisions, special designations, National Wild and Scenic Rivers System determinations, and foreseeable development. The rationale for discounting additional impact topics from intensive discussion is found within Chapter 1. Specific environmental impacts of both local and regional concern will be assessed within project level and activity level NEPA documents (eg. environmental assessments). Many programmatic related impacts are discussed within the referenced NEPA documents (eg. Redding Proposed Livestock Grazing Management EIS) carried over within the RMP; these documents are available at the Redding Area Office.

COMMENT 123

Mention of need for establishing standards for when not to suppress (wildfire) should be included.

RESPONSE 123

Because most of the public lands administered by BLM's Redding Resource Area are small acreages and are frequently adjacent to high value private or federal lands, and because BLM has determined that a major repositioning of public lands is necessary no evaluation of potential "let burn" areas has been done. Several areas containing sensitive cultural, biological, or soil resources have been identified as "limited suppression areas". These areas permit only rubber-tired vehicles, aircraft, and hand crews to be used to suppress wildfire.

Should land acquisitions, consolidation or changes in adjacent ownership occur and suggest need for evaluation of modified suppression potential, such evaluation can be completed at the activity plan level.

COMMENT 124

Page 2-7, Encroachment. Trespass problems resulting from the BLM Cadastral survey must be resolved. Despite the fact it has been several years since the survey was completed, some property owners that are affected do not know the problem exists. I own property affected by the survey and have not received any correspondence addressing the problem.

A Board of Supervisors committee has been meeting for approximately two years to resolve these survey related trespass problems. Part of the problem lies with BLM administrative interpretation of survey data as well as their approach to resolving this issue. It is therefore recommended that the plan provide additional discussion of what the plan's intent is in regards to resolving this matter as well as provide for administrative flexibility in resolving these problems. It should be noted that many of these "trespass" issues are a result of fraudulent government surveys and land sales conducted without adequate surveys by BLM or it's predecessor agency.

RESPONSE 124

BLM will contact inadvertent trespassers with residential improvements on permanent foundations. Trespasses involving roads and/or moveable outbuildings are a second priority. The second portion of this comment suggests that BLM change their administrative interpretation of survey data, and recommends that the Resource Management Plan provide a means for administrative flexibility in resolving these problems. As BLM has discussed with the liaison committee appointed by Trinity County, interpretation of survey data is not an issue that BLM may address. Also, the

Resource Management Plan is not the proper vehicle for exploring administrative resolution of the inadvertent trespasses. Efforts by the liaison committee to invoke legislative relief, or investigation of resolution by use of a homeowners association to create by-laws to disperse property, should be continued. In the meantime, BLM will continue to contact affected property owners and initiate trespass resolution on a case-by-case basis.

COMMENT 125

Year round prohibition of off-road vehicle usage in decomposed granitic soils should be included in the plan as well. [Trinity County]

Recognize BLM's important role regarding controlling decomposed granite sediments reaching the Trinity River. Lands under BLM management in this soil type should have as first priority the controlling of erosion and reducing sediment delivery into the watercourses. Soil disturbing activities should be conducted only when no new erosion will result.

RESPONSE 125

The following statement has been added to Chapter 3 under the proposed action alternatives for both the Trinity and the Shasta management areas of the RMP. " BLM administered roads and trails within the zone of decomposed granite-derived soils are closed during the rainy season and could be closed on a year-round basis at the discretion of the BLM to protect the resource values of these erosion sensitive areas. Also, soil disturbing activities would be conducted only when no new, long-term increases to erosion would result." Furthermore, BLM has proposed to acquire and rehabilitate Grass Valley Creek watershed in this Final RMP. This watershed is the most notorious erosion problem in the entire planning area.

COMMENT 126

The fact that "determinations for hydroelectric development are unchanged in all management alternatives" is question-begging at best. While this paragraph is somewhat incomprehensible, if it is intended to mean that hydroelectric development will proceed identically under the various alternatives, this is clearly putting the cart before the horse. Unless information is made available as to the likely impacts of dams or other hydroelectric projects, it is impossible to determine whether such development is consistent with BLM's stated goals for the Resource Area.

RESPONSE 126

The first sentence of the "Hydroelectric Development" portion of Chapter 1 Impact Topics Considered But Dropped From Further Analysis; "determinations for hydroelectric development are unchanged in all management alternatives", is incorrect. The wording has been changed to reflect that the determinations for hydroelectric development are not considered in all management alternatives. Also, the "Hydroelectric and Water Storage" section of the "Management Guidance and Decisions Common to All Alternatives" portion of the Draft RMP/EIS is incorrect. The management areas will be managed for the stated objectives. The development of hydroelectric and water storage will not take precedence over the stated objectives. The wording in this section has also been changed to reflect this. The Federal Energy Regulatory Commission is the permitting federal agency for hydroelectric development.

COMMENT 130

In the discussion of the Minnehaha Mine at C-5, Column 1, 2nd paragraph: "BLM's regulations have proven to be inadequate to prevent this occurrence or to correct the problems." This statement is in direct conflict with the Secretary's official policy in support of the 1872 Mining Law as amended and regulated and has no place in a document of this stature. Whether the actual incident is a failure of the 3809 regulations or a failure of the miner to comply with and the BLM authorized officer to fully apply and enforce the regulations (or possibly even the authorized officer's incompetence in analyzing the project and requiring appropriate mitigating measures) is a judgement call that could be passionately argued for an eternity without resolve. Attractive as it may be to plead the agency blameless, and doubtless the author believes it to be true, none the less, an internal document and not a public one would be the appropriate forum. I am certain the argument can be made in support of the ACEC without taking a position contrary to the Department's and the Bureau's publicly stated policy. It simply isn't necessary.

RESPONSE 130

This statement is not in conflict with the Secretary of Interior's policy. At the time of writing this Final RMP, there are numerous proposed 43 CFR 3809 regulatory changes addressed at correcting deficiencies in the current regulations, which allowed the situation to occur at the Minnehaha Mine. It is not known what the final regulations will be like, or how effective they will be in addressing the known deficiencies. Redding BLM records document, and we still believe, that regulatory weakness, combined with a non-complying miner, were the primary causes for the environmental problems at the Minnehaha Mine.

COMMENT 131

In Chapter 4, Page 26, in discussing the No Action Alternative in regards to impacts to Anadromous Salmonid Habitat on Canyon Creek, it is stated: "Conditions would remain stable for this stream." On Page 27 in the same discussion for the North Fork, it is stated: "The condition of this habitat would remain stable although permitted mining activity could degrade this segment of stream." On Page 4-31, under the Administrative Adjustment Alternative, again the discussion for Canyon Creek states: "The condition of this key habitat area would remain stable." On Page 4-32, the discussion of the North Fork states: "Withdrawal of this segment from mineral entry would ensure long-term stability of the habitat." My observation is that the referenced section of the North Fork receives less mineral activity than Canyon Creek. Some years the activity may equal that on Canyon Creek, but that is not my observation. The overwhelming majority of mining activity on both creeks is suction dredging. I have personal knowledge of only one high bar placer operation on that section of the North Fork in the recent past; it was minimal and short lived. If Canyon Creek is assessed as remaining stable under current circumstances, and that is the conclusion of other experts (see "Impacts of Suction Dredge-Mining on Anadromous Fish, Invertebrates and Habitat in Canyon Creek, CA" Hassler, Somer, Stern, 1986 - - this was a 4-year study) what specifically led BLM to conclude that the North Fork faces degradation if not withdrawn from mineral entry? I would like a direct response to this question. This is a determination that should be based on actual and specific evidence of incompatibility, and I challenge the planners to demonstrate that such exists.

RESPONSE 131

The preferred alternative has been modified by not recommending withdrawal of the entire North Fork Trinity River. See # 134.

COMMENT 132

I am vehemently opposed to the withdrawal from mineral entry of any land that is designated for multiple use. The following comments are made specific to the Trinity, but in principle apply to all areas that fall within a multiple use prescription. I am requesting that the planners review again any proposed mineral withdrawals for all management areas. I feel the planners have been surreptitious in not stating clearly that withdrawal equal prohibition. That is the purpose of withdrawal. If the activity is incompatible, it should be prohibited, but start at the beginning and demonstrate incompatibility. I believe the planners position on this point is wholly unsubstantiated.

RESPONSE 132

The use of land withdrawals from mineral entry is a management tool given to BLM by the U. S. Congress in the Federal Land Management and Policy Act of 1976. Congress recognized that even though BLM is obligated to manage the public lands under the concept of multiple use, that not all lands are suitable for all types of uses and resource development. In certain areas, some resource uses and conflicts are undesirable and should be prohibited or minimized. "The term 'multiple use' means the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output." FLPMA Sec.103(c).

A mineral withdrawal does not always equate with mining prohibition. As stated on page 1-8 of the Draft RMP, "Mining claims which are 'grandfathered', that is, located before the land is withdrawn, continue to give the claimant the same rights that existed prior to the withdrawal." The purpose of a mineral withdrawal is to eliminate or limit unacceptable conflicts between mining activities and other resources or public uses of the land. If there is a limit placed on the number of mining claims placed on an area, we have found that the cumulative adverse impacts of mining on an area usually decrease. As the number of mining claims in a withdrawn area can only change by decreasing, the adverse impacts also correspondingly decrease.

The original (Draft RMP) recommendation for withdrawal along the entire segment of the Trinity River has been changed to include developed public interests only. Please refer to Response 134.

COMMENT 133

At Chapter 1, Page 8, the first paragraph is flagrantly misleading in stating that "there is little significant difference in the amount of public land withdrawn between the "no action" alternative and the proposed action. With the exception of certain areas and place gold mining, this will mean that locatable mineral development in the Redding Resource Area will not be significantly affected by the decisions of this RMP" (emphasis added). As "certain areas" includes 34 1/2 miles of the Trinity River, and essentially all which is open to entry is in fact located, I am at a loss to understand why this area should be excluded for the purposes of such determination. Likewise, I'm certain that expressed as a percentage of notices, plans and non-noticed casual use, "placer gold mining" represents the overwhelming lion's share of "locatable mineral development". Considering the enormity of these exceptions, the statement rings false.

If granting grandfather rights to existing claims is the RMP's foundation for concluding no significant impact to mineral development, than the planners are misrepresenting the intent of withdrawal, which is to prohibit mineral development. Areas withdrawn from mineral entry are deemed to be such that mining is prohibited as an incompatible use. Thus, mining claims in Wilderness Areas and rivers designated "Wild" are subjected to prior rights determinations, and gaining access and plan approval become so burdensome as to amount to prohibition. That is why grandfathered rights are often meaningless and abandoned in short order. Surely this fact is not unknown to the planners.

RESPONSE 133

Please refer to BLM's response to Comments 132 and 134.

If portions of the Trinity River are withdrawn, the BLM does not propose to routinely conduct "prior rights determinations", in the form of validity examinations, on mining claims. Regardless of whether the BLM performs "prior rights determinations" or not, whatever rights the claimant has established prior to withdrawal are the same after the withdrawal. This is commonly called a "grandfathered right". The only exception to this grandfathered right would be if the mineral deposit is exhausted (mined out), or the deposit becomes generally uneconomical to mine. Then the claim is no longer valid.

The 43 CFR 3809 plan of operations approval process is the same regardless if the lands are open to mineral entry or withdrawn with "grandfathered" rights.

We are unaware of any occasions where the Redding BLM conducted validity examinations as a condition of allowing mining on claims in withdrawn areas. Mining in withdrawn areas continues at present.

COMMENT 134

Under 3-51, "Rationale for the Proposed Action" the plan states: "To provide adequate protection of these regionally significant values, a withdrawal from mineral entry is deemed necessary." At 3-52, last paragraph, it is stated: "... the locatable mineral withdrawals...are not warranted to protect the natural and cultural values..." Nowhere in the Draft RMP will one find a discussion citing specifically how and why mineral entry has in the past or is currently impairing the recreational or scenic values of the corridor. Rather, the document notes that locatable mineral development is considered an "insignificant impact topic because of the general lack of production, limited number of mining claims and small number of notices and plans". Further, that suction dredging, which is by far the predominant, if not the only, current locatable activity in the proposed corridor, as regulated by the State, causes little adverse environmental impact (4-9). Again, I challenge the planners to demonstrate actual and specific incidents of incompatibility. The operation at Bucktail Hole has been offered as such an instance, to which I counter: (a) Trinity County Planning Director Tom Miller stated on 6/17 that the Bucktail operation is disagreeable to the subdivision, but not to river recreationists; that in fact he canoed that portion of the river and observed that the mining operation is barely visible to river users, (b) the Bucktail operation is an anachronism because it's economic viability rests upon its unique pre-1955 status which allows extraction of sand and gravel under the locatable provisions. That is to say, the likelihood of similar operations is negligible.

I certainly agree that for certain sites of improvements for recreational purposes (campgrounds, etc.) and perhaps some types of fishery habitat restoration, the BLM and the public have a legitimate interest in protecting the investment and attendant values. These sites warrant identification and consideration for withdrawal. However, a blanket withdrawal is repugnant to the Trinity River's multiple use prescription, especially absent a showing of present incompatibility.

RESPONSE 134

The respondent is correct: There is insufficient rationale to withdraw from mineral entry the entire Trinity and Klamath River corridors. The proposed action of the Final RMP has been modified to show that only the

following areas will be nominated for withdrawal along the Trinity, North Fork Trinity and Klamath Rivers:

1. Proposed or developed BLM improvements, such as: campgrounds, day use areas, fisheries projects, and river access facilities. An appropriate amount of land will be withdrawn to protect the specific resources and improvements and to allow for the public's unimpaired enjoyment. These improvements represent significant expenditures of public funds for their construction and upkeep. They are also very important for enhancement of other resource values and resource uses. Mining at these sites is not compatible with the uses developed thereon. Claimants have, in some instances, presented significant problems to fisheries restoration by filing lawsuits or threatening litigation over use of their claim sites. After fisheries restoration work has been completed, there have been instances of miners causing problems by mining these sites. This has reduced the effectiveness of the restoration projects through turbidity, sedimentation, bank erosion, and direct disturbance of fish and the organisms that fish feed on.

2. Lands newly acquired by means of exchange or purchase. Even though patent to the surface of these lands in the National Wild and Scenic Rivers System (NWSRS) could no longer be obtained via the Mining Laws, the mineral estate could still be patented. It makes no sense for the BLM to spend its limited funds on processing an exchange for lands along these NWSRS rivers and then have the excellent possibility of the mineral estates privatized again with no compensation to the general public. In addition, mineral estates are legally considered the dominant estate and the surface estate the subservient estate. This means that the owner of the mineral estate is free to do as he pleases to the surface estate as long as it is reasonable to his enjoyment of the mineral estate. Even the 43 CFR 3809 Regulations would not apply to mineral exploration and development on these lands. Such reasonable mining use could easily result in the loss of the non-mineral resource values and public benefits which the BLM sought through the land acquisition.

3. Cultural resource sites: i.e. those determined to be eligible for inclusion on, or those listed on, the National Register of Historic Places. An appropriate amount of land will be withdrawn to protect the specific resources. These important cultural values along the Trinity River are often in areas which have never been disturbed by placer mining. That makes these sites, when they occur on river alluvium, prime targets for mineral exploration and development.

The BLM and some members of the public would argue that the Bucktail Hole mining site is disagreeable to many river recreationists and it can be seen and heard from the river. The public's use of the Trinity River also includes extensive usage of the public lands adjoining the river. It is a fact that the Bucktail Hole placer mining operation has displaced a number of recreationists, impaired the recreation experiences of others, and prevented the BLM from implementing the Trinity River Recreation Management Plan of improving this public land as a public river access and day use area. The BLM can not confirm or deny if the current mining operation at Bucktail Hole is viable solely on the sand and gravel values. We would welcome the submittal of any proof the respondent has on this matter. The BLM does not believe that the Bucktail pre-1955 situation is unique in this Resource Area. With an increase in the price of gold to levels which occurred within the last 12 years, other operations of this size are indeed probable during the life of this RMP.

COMMENT 135

I believe the planners are misguided in their proposal to manage a "recreational mineral collection system, much like the one in place along portions of Butte Creek" for the withdrawn areas (1-8). In scale and usage, the Trinity and Klamath Rivers are in no manner analogous to Butte Creek. It is absolutely unrealistic to project that the "mineral collection system" currently used on Butte Creek will have any relevance toward "reduce(ing) much of the impact to placer mining" (1-8). There is a vast chasm separating "mineral collecting" and placer mining".

As far as "enhancing opportunities for recreational mineral collecting" is concerned, the net effect of a withdrawal must, in fact, diminish such opportunities, both in available sites and approved activities. The most important step in enhancing recreational opportunities for panning, sluicing and dredging is to educate the would-be recreationist in the use of the system. I acknowledge that the BLM does not have a need to keep currently apprised as to the locatable status of its areas. Perhaps the Redding Resource Area in concert with the local mining organizations could make available a list of local clubs and associations who are likely to have current knowledge of available sites. Another possibility is to seek the few sites and make them available in cooperation with the Redding office, to recreational use. This is something that could be reasonably implemented very soon, and provide data for the BLM to support or alter its proposal long before it would be possible to implement the proposal for a blanket withdrawal. As a less preferable alternative: the current use level on Butte

Creek is an average 30 permits/season. Perhaps the Redding Office might withdraw sites on the Trinity that would accommodate 30 additional sites, thus doubling the current capacity and providing the opportunity to collect data and study effects and use patterns.

RESPONSE 135

The BLM has no reason to believe that a recreational mineral collection system, much like the one in place in the Forks of Butte Creek Recreation Area, could not be successfully implemented along certain withdrawn portions of the Trinity and Klamath Rivers. The size and present mining usage of these waterways does not preclude a recreational mineral collection system. In fact, it could be argued that, these characteristics may make such a management system more of a success, i.e. greater public usage and fewer resource conflicts, than in Butte Creek.

The instream mineral collecting methods allowed in the Forks of Butte Creek Recreation Area are identical to the mining methods which would be permissible if the area were open to locatable mineral mining. These methods are suction dredging, sluicing and panning. The BLM has imposed no additional dredge restrictions over and above California Department of Fish and Game restrictions. "High banking" or excavation of surface gravels are prohibited by the Forks of Butte Creek Recreation Area Management Plan because of the resource damage that this type of activity causes. Since suction dredging in the Trinity and Klamath Rivers is currently such a common form of mining, a mineral collection system which allowed dredging, would indeed have great relevance toward reducing much of the impact to placer mining if portions of the rivers are withdrawn. We see little difference between placer mining and mineral collection in this respect.

If, according to comment # 133, "most" of the Trinity River public lands which are open to mineral entry are in fact located with mining claims, that may be one reason to have additional areas managed for recreational mineral collection. From our experience, many claimants do not allow others to dredge on their mining claims, or they demand an exorbitant price for their permission. Many recreational dredgers and mineral collectors do not wish to bother with the complexities and problems of attempting to find, make and keep a mining claim location. They merely wish to find someplace where they can pan, sluice, or dredge for gold on occasion. Each year, the Redding BLM has received numerous requests for these opportunities, mainly for areas in Shasta and Trinity Counties.

The BLM does "keep currently appraised as to the locatable status of its areas". Mining claim records are kept in the BLM State Office, with microfiche summary information available in each field office. Land status information is available in every field office in the form of Master Title Plats and Historical Indexes.

COMMENT 136

As regards fishery habitat restoration, this is a relatively new endeavor for the main stem Trinity, and there is much room for dialogue and creative cooperation. It is my opinion that the Redding Office has erred in not soliciting dialogue from the mining community, especially when a forum already exists for that purpose. From my perspective, the appearance is as though BLM has been trying to keep a secret rather than promote cooperation and good faith.

At it's best, I see the relationship between claimant and the Task Force as potentially symbiotic rather than mutually exclusive. For instance, the corridor is defined as the 100 year flood plain. Yet, because of the dam, this has become a historical concept rather than an actual zone of intermittent flooding. These are areas that were previously rock bars but are now choked with sand and willows. Why should this area be barred from entry when mineral development would consist of essentially the same activity as is required to restore the bar?

The areas slated for habitat restoration are known well enough in advance to provide ample notice to the claim owner and time to negotiate mutually agreeable provisions. Claim owners with legitimate economic interests have the most to gain from and will be the most likely to be cooperative. The worst case scenario, whether the entire river is withdrawn or not, remains the same in either case, because those least compromising individuals are most likely to cling to their grandfathered rights.

RESPONSE 136

The BLM has routinely notifies claimants of any plans for fisheries restoration work on their claims on various waterways in the Resource Area. These notices explain the project's purpose, plan, location and provide an opportunity for dialogue between the BLM and the claimant. In some cases, miners have responded to these notices, and in others, they have not. Claimants have, in some instances, presented significant problems to fisheries restoration by filing lawsuits or threatening litigation over use of their claim sites. After fisheries restoration work has been completed, there have been instances of problems caused by attempted mining of these habitat improvement sites. This can reduce the

effectiveness of the restoration projects through turbidity, sedimentation, bank erosion, and direct disturbance of fish and the organisms that fish feed on.

The BLM does recognize that mutually beneficial mining and fisheries developments can coexist in certain circumstances. The mining community has been made aware of this possibility.

COMMENT 137

In Chapter 1, Page 7, the last paragraph, 1st sentence, I believe it would be more neutral, in fact correct, to refer to mineral development as opposed to "exploitation". The latter term carrier a strongly negative connotation in popular usage, as I believe it was intended to here. It is not appropriate for an agency charged with managing mineral development, to convey an unethical or selfish state-of-mind, or to otherwise negatively characterize the would-be mineral developer simply because others have deemed the amenity values to be of higher public value. Whether all mineral development is "exploitation" or none of it is,. I do not believe it is a judgement your agency has the luxury to consider or proclaim. If "exploitation" has a neutral connotation in the mining industry, and I'm not aware that it does, than it does not carry over to the popular usage. This term is also found at F-1, 2nd column, 3rd paragraph. As the term "development" is synonymous within the context of both these instances, I believe it is the better choice.

RESPONSE 137

BLM's intended meaning of the word "exploitation" is as it is defined in Webster's Third International Dictionary (Unabridged), as its first, non-obsolete, definition (or sense). That is: "utilization or working of a natural resource." It is derived from "exploit"; meaning, "to turn (a natural resource) to economic account: work, cultivate a mine." Reference to the third definition of the word "exploit" : "to make use of meanly or unjustly for one's own advantage or profit", is the cause for confusion and concern in the respondent's letter. For the sake of clarity, the phrase "exploration and development" has been substituted for the word "exploitation" in this Final RMP.

COMMENT 138

The [commentor] supports BLM intention to acquire private land in the Trinity River corridor. However, we are concerned about potential degradation of the Trinity River from authorized mining and forest management activities above this narrow corridor.

RESPONSE 138

All forest management activities and most minerals exploration and development activities must be screened by, and potentially modified by, the environmental assessment (E.A.) process for compliance with law and regulations and for conformance with the Redding RMP and any activity plans. One of the stated objectives of this plan for the North of Trinity River\Deadwood\Indian Creek area is to maintain the riparian and fisheries habitat of anadromous fisheries streams. Also, the proposed action for the Trinity River area includes an objective to protect the anadromous fisheries of the Trinity River. The management practices in one management area would not normally be allowed to degrade the resources being protected in an adjacent area. Although forest management and mineral exploration and development activities may create a certain amount of sediment load for the adjacent steams, it would be within the limits determined acceptable by the E.A. process, for the maintenance or protection of the riparian and anadromous fish habitats.

COMMENT 139

We object to allowing mineral leasing with no surface occupancy within areas withdrawn from mineral entry (Page 3-48, Item 7).

RESPONSE 139

These lands are currently available for mineral leasing without a no surface occupancy (NSO) stipulation. BLM believes, that by using the NSO stipulation on any future leasable mineral exploration and development, it will allow BLM to meet the stated resource condition objectives.

COMMENT 140

We recommend that BLM revoke mineral withdrawal from areas up-slope of waterways where a high potential for erosion or degradation of water quality exists. Further, the BLM needs to consider pursuing revision of the General Mining Law of 1872 if it hopes to significantly improve its stewardship of public lands. Otherwise, there will be nothing to prevent the occurrence of a deleterious situation such as that of the Minnehaha on upper Big Chico Creek.

RESPONSE 140

Existing mineral withdrawals will be recommended for revocation when they are no longer needed or fail to serve the purpose for which they were enacted.

Statutory reform of the 1872 Mining Law can only be accomplished by the U.S. Congress and is beyond the scope of the Redding RMP/EIS process.

COMMENT 141

I support the withdrawal of surface mining from all environmentally sensitive areas, including recreational

mining, if such recreational mining cumulatively effects environmental value.

RESPONSE 141

Withdrawals of public land from locatable mineral exploration and development is a management option made available to the BLM through Sections 202 and 204 of the Federal Land Policy and Management Act of 1976. Since the BLM is committed to the principle of multiple use management on most of the lands we administer, withdrawals will be used sparingly to achieve stated resource condition objectives, and only when the use of other management options is not feasible.

Please also refer to comment/response 158.

COMMENT 142

Due to gravel mining impacts on streams generally and fish habitat specifically I oppose any blanket approval of stream gavels, and believe than an EIR should address such effects.

RESPONSE 142

The Redding RMP/EIS does not give "blanket approval" to the instream mining of sand and gravel. Each proposal would be evaluated on its own merits and in consistency with the stated resource condition objectives of the RMP and compliance with all applicable laws and regulations.

COMMENT 143

The [commentor] strongly supports designation of the Upper Klamath River and the Shasta River as Wild and Scenic. The river corridors should be withdrawn from mineral entry. Valid existing claims should be limited with no surface occupancy.

RESPONSE 143

The Final RMP proposes to withdraw the 100 year flood plain of the Shasta River from mineral entry. It is not legally feasible to limit valid existing mining claims with a no surface occupancy stipulation.

COMMENT 144

The North Fork Cottonwood Creek should be designated as Wild and Scenic. All lands in the corridor should be retained and existing private lands should be acquired. The North Fork and Clear Creek should be withdrawn from mineral entry. Valid existing claims should be limited by no surface occupancy.

RESPONSE 144

Public lands within 1/4 mile of the North Fork Cottonwood Creek will be retained and managed as interim components of the National Wild and Scenic River System (NWSRS). If this segment is included into the NWSRS, unimproved private lands within the corridor would be sought from willing sellers. Withdrawals from mineral entry is not deemed necessary to the resource management objectives along North Fork Cottonwood Creek and Clear Creek canyon. Please also refer to BLM's response to Comment 141. It is not legally feasible to limit valid existing mining claims with a no surface occupancy stipulation.

COMMENT 145

The entire Bend area should be withdrawn from mineral entry. Valid existing claims should be limited to no surface occupancy.

RESPONSE 145

Please refer to BLM's response to Comment 141. It is not legally feasible to limit valid existing mining claims with a no surface occupancy stipulation.

COMMENT 146

Mineral rights at the Minnehaha Mine site should be acquired and the area rehabilitated to protect the stream values of Big Chico Creek.

RESPONSE 146

Transfer of the locatable mineral rights at the Minnehaha Mine to the BLM is not a feasible proposition. This transfer could be made to another party or governmental agency. BLM is actively performing rehabilitation work at the Minnehaha Mine to correct existing environmental problems. The RMP proposes to withdraw this parcel from locatable mineral entry.

COMMENT 147

The FEIS should include an assessment of the potential environmental impacts resulting from the establishment of the community pit designations identified on Page 3-10 of the DEIS.

RESPONSE 147

Establishment of community pit site designations via the RMP process has been determined to be unworkable. Since authorizing regulations at 43 CFR 3604.1 state that "no mining or reclamation plan shall be required" after the community pit is established, it is assumed that such plans must be in place prior to establishment of the community pit site. They have not been prepared in this Final RMP/EIS. The community pit section in Chapter 3 of the Draft RMP has therefore been deleted. Community pit site designations may occur in the future as they are needed and as BLM staff time allows.

COMMENT 148

Finally, the plan should not allow any mineral materials disposal within the 100 year floodplain of anadromous

fishery streams in the area east of the Sacramento River. The document presents no scientific evidence that such disposal can enhance salmonid spawning or riparian habitat, and the BLM should not allow further degradation of these habitats for mining activities which somehow "enhance" semi-primitive recreation activities.

RESPONSE 148

Mineral material disposals could enhance salmonid spawning, riparian vegetation, and semi-primitive recreation in this area by the removal of existing placer mining tailings. These remnants of previous mining efforts, are largely sterile of vegetation and are a degradation to the visual quality and recreational enjoyment of the area. The removal of this coarse material can be accomplished while leaving the finer size material in place, which is then capable of supporting vegetation and improving the visual quality and recreational enjoyment of the area. After screening and sorting, these placer tailings can provide a source of salmonid spawning gravels which can then be placed in the Sacramento River for fisheries enhancement purposes.

COMMENT 149

Withdrawals should include recreational mining, if cumulative activities reach the point where resources or other uses are affected.

RESPONSE 149

Please refer to BLM's responses to Comments 157 and 158. Withdrawal from recreational mineral collection would never be needed because this activity can be adequately regulated, or prohibited entirely, in areas previously withdrawn from locatable mineral entry.

COMMENT 150

Major mining projects must be assessed in a separate EIS.

RESPONSE 150

Environmental Impact Statements will be prepared for major mining projects when the threshold identified in the exploration and development scenarios in the RMP (Chapter 4 - Reasonable Foreseeable Development) are exceeded, and when BLM is required by NEPA to do so.

COMMENT 151a

The Affected Environment section should have contained information from BLM's "GEM" report and not just referred readers to the report; not all reviewers have access to that report. There is no way for the reviewer to determine the amount of high or moderate mineral potential that occurs within individual management objective areas (such as Quartz Hill, Minnehaha Mine, Trinity River, or west of French Gulch) or what commodities might occur there. The RMP/EIS only refers to general mineral activity in general geographic areas. Mineral resource potential maps, with commodities identified, that can be used with the management area maps would work best.

RESPONSE 151a

In order to keep the amount of text and number of maps in the RMP document to a reasonable size, it was decided that inventory data would be kept to a minimum in the RMP. Hence, mineral potential maps and commodities listings were not duplicated from the Redding Geology Energy and Minerals Report (GEM). Likewise, neither were maps and descriptions of sensitive plant and animal species habitats, visual resource management classifications, range conditions, and timber land classifications duplicated in the RMP. The reader is given the references to supporting inventories and documents for any desired inspection. Only two members of the public have requested the Redding GEM report for review.

COMMENT 151b

Discouragement through costly mineral development restrictions can be just as effective in prohibiting new mining activity as any withdrawal from mineral entry. Therefore, detailed maps of the actual location of mineral potential areas are necessary to identify where the more subtle impacts to mineral resource development will likely occur.

Appendix E- 43 CFR 3809 Standards, and Appendix F - Assessment of Mineral Potential are excellent additions to the RMP/EIS. A few changes to these appendices will resolve many of our concerns with the document. We view Appendix E as describing the minimum requirements for mineral development on open Federal land. It is not unreasonable to expect that the key issue areas managed for anadromous salmonid habitat, archaeological resources, deer winter range, scenic quality, slender orcutt grass, spotted owl, and waterfowl/wetland habitat, as well as other sensitive areas, will require additional restrictions.

RESPONSE 151b

Many general constraints to mineral exploration and development are identified on the maps and in the narrative. Those areas: proposed to be withdrawn from locatable mineral exploration and development, not available for mineral leasing, not available for mineral material mining, available for leasing with no surface occupancy stipulations, and where 43 CFR 3809 plans of operation instead of notices are required, are restrictions discussed in the RMP. The RMP is not the proper planning and environmental review level to develop other, more site specific, mitigation measures control-

ling how mineral exploration and development will be regulated. This would be done at the activity plan level and when specific mineral exploration and development proposals were received.

COMMENT 151c

The different restrictions on mineral development for each key issue area should be identified, and Appendix E would be a good place for it. If any of these additional requirements are considered moderately or highly restrictive to mineral development, a section should be added to Appendix F to reflect these restraints.

RESPONSE 151c

The contents of Appendix F are required by BLM Manual 1624, "Supplemental Program Guidance for Energy and Mineral Resources". Hence, additional land and mineral potential divisions will not be performed.

COMMENT 151d

When a management plan proposes a mineral withdrawal, it is done to protect a special resource. If this special resource is sensitive enough to require extra protection, this protection is usually recommended in all of the alternatives except the no action alternative. This explains why Appendix F shows little change in impacts to mineral resources from one alternative to another. The real differences in alternatives occur in the amount of land managed under restrictive use policy. By including a restrictive category in Appendix F, as previously mentioned, the real differences in impacts to mineral resource development between alternatives will become obvious. We strongly recommend that this category be added.

RESPONSE 151d

The lands proposed for mineral withdrawal are not always the same by each alternative. Mineral withdrawal is one management option available and considered in the different alternatives.

COMMENT 151e

We question the validity of some of the acreage numbers used in Appendix F. For example, on Page 3-14, under Wild and Scenic Rivers, it states that no consideration to these rivers was made under the No Action alternative. On Page F-1 it states that lands recommended to be withdrawn are considered closed. Since a "Wild" river designation made by Congress carries with it a non-discretionary withdrawal, these proposed withdrawals should be reflected in Appendix F. A quick look will show that the 5,400 acres of closed (non-discretionary) land for locatable minerals in the No Action alternative do not change in the other alternatives.

Where was the acreage for "Wild" river designation accounted for in the appendices? Because of this we wonder if the proposed discretionary mineral withdrawals, such as those within the 100-year flood plains or for ACEC's, have all been inventoried in the appendices.

RESPONSE 151e

Appendix F does not tabulate those public lands within river segments classified as "wild" under the National Wild and Scenic Rivers Act (NWSR), as being in the "Closed (Non-discretionary)" category. River segments found eligible for inclusion in the National Wild and Scenic Rivers System (NWSRS) and initially evaluated to be "wild" are not withdrawn from mineral entry. These preliminary "wild" classifications are not to be construed as recommendations for "wild" status. The last phase in implementing the NWSR Act involves a suitability recommendation/EIS delivered to congress, which would also recommend classifications of river segments.

COMMENT 151f

Other areas of concern are the 6,600 acres of moderate and 3,500 acres of high mineral potential in the Scott Valley and Yolla Bolly Management Areas. Since these areas are identified for transfer or exchange, how will the exchanges be handled in these areas of mineral potential? The document states that lands with high public value will be acquired. Does this mean that mineral land will be exchanged for habitat?

RESPONSE 151f

Land exchanges are authorized by Section 206 of the Federal Land Policy and Management Act of 1976. According to this law, public lands may be disposed of through an exchange where the Secretary of Interior "determines that the public interest will be well served by making that exchange: Provided, That when considering public interest the Secretary concerned shall give full consideration to better Federal land management and the needs of State and local people, including needs for lands for the economy, community expansion, recreation areas, food, fiber, minerals, and fish and wildlife and the Secretary concerned finds that the values and the objectives which Federal lands or interests to be conveyed may serve if retained in Federal ownership are not more than the values of the non-Federal lands or interests and the public objectives they could serve if acquired." Mineral potentials and values are considered in making the decision to exchange public land, as are many other resource values and considerations. Federal Regulations at 43 CFR 2200 and the BLM Manual 2200 section define the procedures to be followed in land exchanges. A site specific mineral potential inves-

tigation and report is required, as part of the decision making process, before the land exchange is finalized. In some cases, high mineral potential public lands may be exchanged for private lands with high valued wildlife habitat. In other cases, low mineral potential public lands may be exchanged for private lands which have high mineral potential. Likely uses of the public lands being transferred to private ownership are considered in the exchange decision making process, as are impacts to the resource values.

COMMENT 151g

Will difficult to manage and access split estate be created?

RESPONSE 151g

In some cases, especially where there is moderate or high oil and gas or geothermal potential, only the surface estate of the public land in an exchange will be traded for private land. BLM's experience has shown that managing the remaining oil and gas or geothermal estates is not significantly more difficult than if the surface estate were still in public ownership.

COMMENT 151h

Will this land be exchanged to someone more likely to develop it or lock it up?

RESPONSE 151h

Uses of public lands exchanged to private ownership will be subject to State and local zoning and land use constraints. Subject to these constraints, it is presumed the new land owner will put the land to its highest and best use which our free enterprise and capitalist form of economy encourages.

COMMENT 151i

Will unexchanged blocks of public land with mineral potential become more difficult to access and develop?

RESPONSE 151i

In many instances, the public lands identified for disposal have no public access to them. Public access will be retained across lands disposed of via exchange to accommodate use of remaining public lands and enhance their value for future exchanges. In some cases, private lands acquired by the BLM, will provide new access to existing public lands.

COMMENT 151j

Our final concern deals with the potential overuse of mineral withdrawals in areas known for their mining activity in order to prevent that activity. Withdrawing land from placer mining under the mining laws within the 100-year flood plains of sensitive rivers and then returning this activity under a permitting system is a risky circumvention of the mining laws. This action may give the land managers needed control over this activity, but where do you draw the line? Who is determining when and how much is justifiable? This may set a dangerous precedent if guidelines determining when this procedures is appropriate are not established.

RESPONSE 151j

Federal Regulations at 43 CFR 8372 provide the authority for requiring permits for recreational mineral collection. The BLM is obligated to manage the public lands under the concept of multiple use and sustained yield of its resources. We have determined a small percentage of the Resource Area to contain such high public value for non-mineral resources, that withdrawals are justified in order to protect these resources. One of the purposes of this public document is to decide which public lands should be withdrawn from locatable mineral exploration and development. BLM does not take the issue of withdrawing lands lightly. A formal process for the withdrawal of lands is dictated by the 43 CFR 2300 Regulations.

COMMENT 152

We also support the revoking of the programmatic approval of sand, gravel, and rock removal for personal uses.

RESPONSE 152

It is not cost effective for the BLM to process the numerous requests for the sale of small amounts of mineral material scattered throughout the Resource Area by using the 43 CFR 3600 regulations. Removal of small quantities of mineral materials for personal use is presently authorized by Federal regulations at 43 CFR 8365.1-5(b)(2). The RMP management decision would merely quantify what is considered to be a "reasonable amount" of rock and spell out guidelines for its collection. We are specifying in the final RMP that the reasonable amount is limited to 1000 pounds annually, the approximate capacity of one small pick-up truck. This removal is permitted unless otherwise specifically prohibited, may not involve the use of mechanized earth moving equipment, and may not cause unnecessary or undue degradation. Reclamation work may be needed and is required in some cases. This level of activity is similar in impact to other resources as "casual use" 43 CFR 3809.0-5(b), those activities associated with locatable minerals exploration and development. The BLM will monitor this use through routine field examinations and patrols, and when problems are identified by the public.

COMMENT 153
Prefers "No Action" alternative. Leave in Steiner Flat to Reading Creek for mining.

RESPONSE 153
The Final RMP shows the alternative selected for management along the Trinity River.

COMMENT 155
Shasta-Trinity Small Miners Group could put together a list of names of miners who would allow people to recreationally dredge.

RESPONSE 155
If this occurred, it could serve to at least partially meet the needs of the recreational gold dredgers. Problems could arise if the claimants changed their minds on this matter and decided to restrict or prohibit the recreationists. There would be no guarantee that these freely accessible recreational opportunities would continue in the future.

COMMENT 156
Lower Clear Creek: Wants this area kept open for sand and gravel operations. These operator's reclamation plans would enhance fish, wetlands, recreation, flood control. Favors No Action alternative.

RESPONSE 156
Sand and gravel could be extracted from the lower Clear Creek area within the 100 year flood plain line if such extraction will enhance salmonid spawning or the restoration of riparian vegetation.

COMMENT 157
In Section 3-11 there is no discussion in the RMP explaining recreational mining. BLM needs to develop the recreational mining component.

RESPONSE 157
Recreational mineral collection is defined in the glossary on page GL-6 of the Draft and Final RMP. Creation of recreational mineral collection areas are done in accordance with the 43 CFR 8372 Regulations. This will be done at activity level planning which is more site specific than the RMP.

COMMENT 158
There is no need to support recreational mining because of the destruction it does.

RESPONSE 158
From our four year experience of administering a recreational mineral collection program in the Forks of Butte Creek Recreation Area, we have not found there to be any significant adverse environmental impacts from the permitted activities. Activity level plans for recreational mineral collection would address any undesired impacts.

COMMENT 159
Plan needs identification of method of disposal for split estate lands. The two estates should be merged.

RESPONSE 159
The conveyance of federally-owned mineral interests on privately owned property is governed by Federal Regulations at 43 CFR 2720. The methodology used in processing these conveyances is found in the BLM Manual Section 2720. This process does not need to be addressed in the RMP.

COMMENT 160
Concern over maintenance of Limekiln structures.

RESPONSE 160
The Montana Cabin or Limekiln Gulch structures are periodically monitored as part of the Resource Area's Cultural Resource Monitoring Program. While BLM does not have the funds to totally reconstruct and maintain these structures to a level that would approach that at the time they were occupied, maintenance will be periodically undertaken when serious problems are encountered. BLM is looking for members of the public who would be willing to "adopt" this historic structure and provide more frequent monitoring and upkeep. If the structures become a liability to public use, however, they will be removed.

COMMENT 161
Provide more lands designated for Native American use.

RESPONSE 161
The Bureau of Land Management has no legal mechanism to allocate public lands solely for the use of Native American groups, including federally recognized tribes. This process must be done through a U.S. Senator or Representative and Congressional approval. The Bureau of Land Management has a procedure through which various groups may acquire use and eventual title to public lands. This is done through the Recreation and Public Purposes Act (43 CFR 2740) for set-aside lands. In order to provide local Native Americans more opportunities to take advantage of this Act, we have designated in our preferred alternative that those public lands in T. 31 N., R. 12 W., Sections 13 (east 1/2) and 24; T.45 N., R. 7W., Sections 2, 3 , 10, and 11; T. 31 N., R. 11 W. Section 6 (with the exception of one lifetime lease parcel) be set aside for a period of five years for applications under the Recreation and Public Purposes Act of 1926.

It is apparent in the proposed action that we have proposed the acquisition of some private lands in Trinity County, especially along the Trinity River. These lands, when acquired, will be open to public use, including use by Native Americans. In general, with the proposed action we feel that Native Americans will have more accessibility to public lands for traditional and contemporary needs.

COMMENT 162

Withdraw gravesites from any surface disturbance.

RESPONSE 162

It is not necessary to withdraw gravesites from any approved surface disturbances since such sites are already protected by state and federal laws, unless there is an action determined to be life or property threatening or in the national interest. If this would occur, then the agency and representatives of the ancestors, the County Coroner, and other parties of interest would be involved to arrive at a satisfactory program of removal and proper curation or reburial. Illegal surface disturbances are monitored by staff and law enforcement personnel. In addition, various management actions such as signing and fencing and land use allocations are aimed at protecting known gravesites from illegal digging or other surface disturbing actions.

COMMENT 163

Additional lands should be made available in Hayfork Valley for Native Americans.

RESPONSE 163

Please refer to BLM's response to Comment 161.

COMMENT 164

a. Protect gravesites at Salt Flat.

b. Nor-El-Muk (Wintu band) would like to acquire Salt Flat.

RESPONSE 164

a. The gravesites at Salt Flat have been fenced by BLM with a protective sign placed near the cemetery entrance. This site has been monitored by BLM since fenced in 1983. No disturbances have been noted at this cemetery since the facilities were erected. BLM is looking for Native Americans or other groups who might want to "adopt" this site and provide more frequent monitoring and upkeep than currently in place.

b. The Salt Flat parcel is not available for sale, but the Nor-El-Muk Band of Wintu Indians could enter into a cooperative agreement with BLM for the management of this parcel. If the Nor-El-Muks achieve Federal recognition, they could then petition Congress (through a sponsoring legislator) to pass legislation allowing transfer of this parcel to the tribe.

COMMENT 165

There are possible important paleontologic values in Igo - Ono area (see Ono Quad). BLM should do inventory.

RESPONSE 165

BLM is aware of the significant paleontological values in the Igo-Ono area. The BLM office in Redding has paleontological sensitivity maps which were used in the planning process and are consulted when there is a proposed project. Ideally, BLM would like to have a full inventory of paleontological resources within the area. However, this is not practical. The scientific community is free to conduct further inventories within the area should they choose to again focus research there.

COMMENT 166

Most historic values in Clear Creek have been destroyed by mining.

RESPONSE 166

General statements such as this are difficult to evaluate. If one were to envision all of the past historic activities and resulting remains that hypothetically could be present within the Clear Creek area, then the vast majority have been destroyed or have disintegrated. However, vestiges of historic activities, those traces important to historians, archaeologists and the public, may be significant. This can include the mining features themselves such as tailings, ditches, walls, etc. The rarity and uniqueness of remains, their scientific value, their association with past events that have shaped the region's history, etc. may increase their level of significance. It is known that historic resources remain within the Clear Creek area. The levels of significance have not been determined and are often subjective. Moreover, locations of historic events or activities that may lack physical remains can be significant places.

COMMENT 167

The upland areas in question appear to have high resource values including areas of historic interest - mine shafts, small dams, dredger tailings, and early townsite.

RESPONSE 167

See comments under 166. As with the previous statement regarding the Clear Creek uplands, general assertions are difficult to evaluate in terms of the planning process. "Areas of historic interest" are not necessarily of high significance, for instance, worthy of listing on the National Register of Historic Places. In fact, some of the mining features listed are quite common in the region

and little remains of Horsetown. On the other hand, there are some historic features in the region that clearly are significant at the local, or perhaps larger level. These features are mainly not on public lands. Furthermore, the region has not been totally inventoried for historic values.

COMMENT 170

Boat access at Jelly's Ferry should be limited to small, non-motorized craft.

RESPONSE 170

Boat access at Jelly's Ferry is not formally restricted to non-motorized craft, however, the very primitive level of development effectively precludes launch and recovery of motorboats. Such a limitation is best considered when BLM updates (amends) the Sacramento River Area Management Plan.

COMMENT 171

The boat-in campground proposed for Massacre Flat should offer basic amenities only (pit toilets, tables, fire rings).

RESPONSE 171

The Sacramento River Area Management Plan (BLM, 1986) recommends a primitive campground at Massacre Flat. Fire rings and vault toilet(s) will be installed when money is available for purchase and up-keep.

COMMENT 172

No facilities should be provided at Inks Creek to reduce human intrusion into sensitive archaeological sites.

RESPONSE 172

No facilities are planned for the mouth of Inks Creek, however, a vault toilet and interpretive sign for the Blue Ridge Flume are planned in the Sacramento River Area Management Plan (BLM, 1986).

COMMENT 173

There appears to be a typographical error in Section II(A)(5) (see Page3-68). Sacramento Island is deemed closed to motorized vehicles, but is managed as "Semi-Primitive Motorized". This should read "Semi-Primitive Non-Motorized".

RESPONSE 173

Even though Sacramento Island is closed to motor vehicle use, the parcel is classified semi-primitive motorized because motorboat traffic and motor vehicle use occurs on the adjoining Sacramento River and private lands. The proximity of motorized use influences the experience opportunity that is possible on this small public land parcel to the extent that a semi-primitive non-motorized experience opportunity is not possible.

COMMENT 174

We have no objection to designating the Sacramento River as a scenic classification except traditional routes of motorized access are often closed to motorized vehicles. Why not provide for these access routes if they are acceptable for motorized recreation activities? Why not designate the river as recreational, instead of scenic, where motorized vehicles would be in conflict?

RESPONSE 174

Classification of rivers under the requirements of the National Wild and Scenic Rivers Act is determined by the existing conditions at the time of the classification study. If a river area meets the requirements for a Scenic classification, BLM cannot downgrade the classification to Recreational in order to provide for uses which may not be prevalent at the time of the study.

COMMENT 175

Numerous groups and individuals have contacted us and expressed concern about two parcels for sale or exchange. The first and most important locally would be the parcel of land located on Butte Creek below the covered bridge. Being this parcel is probably the second busiest access spot on Butte Creek, many area residents fear the loss of this "informal park".

The other piece of land that we have heard questions about is the parcel located on the Skyway overlooking Butte Creek Canyon. The outstanding views from this parcel combined with concerns regarding the viewshed from within Butte Creek Canyon looking up towards said property have many area residents worried.

RESPONSE 175

The Butte Creek and Skyway parcels are small, isolated and unmanageable tracts of public land which under BLM jurisdiction do not provide any significant public benefit. They have, therefore, been identified for transfer or disposal.

COMMENT 176

The type of recreational uses occurring in our existing recreation areas (principal interest in Butte Creek) may not be appropriate (damaging wildlife, soils, etc.)

RESPONSE 176

This concern is too general to respond to. Please refer to BLM's response to Comment 254.

COMMENT 177

Vehicle use in Butte Creek should be limited.

RESPONSE 177

Vehicle use in the Forks of the Butte Creek area is limited to a specific area. There are a few sites that are

accessible by vehicle, but most of the public land is accessible by foot only. During the summer months, especially, the Butte Creek area receives quite a bit of recreational users but most people park above the creek on pullouts, and hike into the area.

COMMENT 179

Wants more recreational (no specifics given) activities made available in Redding Area BLM lands.

RESPONSE 179

The RMP addresses land use allocations, land tenure adjustments and management focus. Specific opportunities for various activities would be considered in an activity level plan. This plan would assess the potential of the land to provide various opportunities based on resources, public needs and existing users. The plan would follow BLM policy of public involvement to assist in the decision making process. BLM has determined that the two greenways (Clear Creek and Sacramento River) and the Interlakes Special Recreation Management Area will provide area residents with substantial recreation opportunities. Local government is best suited to meet additional local demands.

COMMENT 180

The commentor supports BLM's proposal to protect critical areas by designating them Areas of Critical Environmental Concern (ACEC). However, the six areas which were considered and not proposed for ACEC designation should be designated as ACEC's if they remain under BLM jurisdiction because of their critical and sensitive natural and cultural resources. The areas possibly deserving of ACEC status, but proposed to be transferred to the Forest Service (e.g., Beegum Gorge, Tedoc Mountain), should not be transferred without assurance that the Forest Service will manage them to protect their important values.

The Cottonwood Creek and Sacramento River parcels, including the ecologically critical areas south of Red Bluff (e.g. Foster Island, Todd Island), should not be transferred to another public agency without adequate assurances that the agency will protect their sensitive habitats equally or better than BLM.

The Ishi Management Area plan is plagued by the same lack of information as the other MA's. Most importantly, the RMP/EIS lacks an adequate description and resource inventory of lands to be exchanged and an adequate statement of the impact these exchanges will have on the environment. This is especially critical with the 6400 acres near Lake Oroville State Recreation Area, and the 800 acres near the West Branch Feather River. These lands should only be transferred if BLM obtains adequate assurance that local agencies can sufficiently protect the outstandingly remarkable values in these areas.

RESPONSE 180

Those suggested ACECs which were dropped from our proposed list were found not to have the values or management concerns sufficient to warrant ACEC designation, or it was felt that better management and resource protection could be handled by another agency or group. Transfer of lands to the Forest Service assures adequate consideration of critical natural and cultural values through the same legislation as BLM, and a detailed planning process. In undertaking the transfer, the Forest Service has been appraised of the known values present or predicted.

Transfer of parcels along the Sacramento River and on Cottonwood Creek to another agency or conservation group would only be done in the interest and with the knowledge that such an action would provide more efficient, protection-related management. Protection of the natural values at these locations would be within the charter or mandate of these agencies or groups which are well-known and respected by the general public for their past actions in this regard. Please refer to BLM's response to Comment 84. Also, lands within the Ishi Management Area proposed for exchange will have detailed inventories conducted for cultural values and special status wildlife species prior to any action, if transfer is to a local or private group or individual. Each transfer or exchange will require a separate environmental analysis. Transfer of lands to a State agency, as in the case of those BLM parcels around Lake Oroville, is considered in the public interest as the State Department of Parks and Recreation-with a local presence-would be in an overall better position to manage the various resources under a protection-related authorization. BLM has found no information in the existing record that would indicate the West Branch of the Feather River, in the general area where the 800 acres are present, or the area bordering Lake Oroville, has outstandingly remarkable values. Certainly there may be select values on a few parcels to be expected. If BLM considers these values to be threatened by the transfer or exchange, then BLM may maintain management responsibility.

COMMENT 181

The EIS's discussion of the Scott Valley Management Area ("MA") is insufficient. The various owl habitat areas (OHAs), including Crater Creek OHA, are insufficiently identified on the map or described in the document, which makes it impossible to determine whether exchanging this land is the best course of action. It is not

clear whether these lands are surrounded by private lands or lands of other agencies.

RESPONSE 181

The OHAs have been added to the maps. It should be clear from the maps whether the OHAs are surrounded by public or private land.

COMMENT 182

The document's treatment of the Klamath MA is also insufficient. It completely fails to explain the reasons and likely impacts of adopting the Resource Use with Natural Values Consideration option rather than the Enhancement of Natural and Cultural Values option. The RMP/EIS never explains its rationale for (1) apparently not protecting Shasta peak from surface disturbing actions, (2) not protecting sensitive native plants, (3) not protecting raptors in the Upper Klamath and Jenny Creek, (4) not improving deer habitat, (5) not attempting to purchase and protect certain lands near the Klamath and Shasta Rivers, (6) not protecting Black Mountain from surface disturbing actions, (7) not maintaining the visual quality of Panther Canyon, and (8) not protecting and attempting to acquire Shasta Grass Lake.

Moreover, no information is provided to the reader for understanding the likely results of failing to adopt these protective goals. Finally, the organization of this section is terrible: only the most careful reader who painstakingly compares the different alternatives will even realize what options were available but not chosen. This is a persistent problem in the RMP/EIS. Without further information , [we] oppose the proposed alternative and recommends that the "Enhancement" alternative be adopted to protect this important area.

RESPONSE 182

The likely impacts caused by implementation of any of the five land use management alternatives were discussed in Chapter 4 - Environmental Consequences. The topics analyzed for the Klamath Management Area included anadromous salmonid habitat, archaeological resources, deer winter range, scenic quality, spotted owl and waterfowl/wetland habitat. Rationale for selecting the proposed action (Resource Use with Natural Values Consideration Alternative) was discussed on Pages 3-39 and 3-40 of the Draft RMP.

In response to the eight specific comments we provide the following by corresponding number:

1. Shasta peak is not discussed in the Draft RMP.

2. Special status species are afforded full consideration by BLM prior to the acquisition of private lands or disposal (via exchange) of public lands as discussed on Pages 3-6 and 3-12 of the Draft RMP, i.e. "Management Guidance and Decisions Common to All Alternatives". By consolidating public land ownership in areas of regional biological importance and protecting special status species on existing public land, BLM intends to increase the likelihood of maintaining regional biological diversity.

3. Jenny Creek management under the proposed action is consistent with the Enhancement of Natural and Cultural Values Alternative. The upper Klamath River would be managed in a manner which would not impair raptor populations. Moreover, the ownership of raptor nesting habitat is presently with Pacific Power and Light. This utility company would not jeopardize resident raptors. Acquisition by a public agency is therefore not necessary.

4. Although some public land within the existing deer winter range would be transferred to the private sector via exchange, other privately owned lands especially along and north of the Klamath River would be acquired. This consolidation effort coupled with active management for deer herds, e.g. Horseshoe Ranch Wildlife Management Area, complementary stewardship with the California Department of Fish and Game, and finally, ordinance(s) of Siskiyou County designed to protect deer winter range will have no adverse overall impact on deer herd populations. Land use allocations, especially closures to vehicles, should help improve the quality of some portions of deer habitat. It is also possible (although presently unknown) that public ownership and changes in land management practices within a portion of the Shasta Valley will enhance deer habitat.

5./6. The most critical resource values in the Klamath and Shasta Rivers canyon are associated with the rivers and immediately adjacent environs. Uplands especially east of Interstate 5 possess some local interest, e.g. Black Mountain to a few Native American Indian traditionalists, and a portion of deer winter range. Present and anticipated private land uses are very low intensity (principally grazing) and BLM does not feel that the resource values would be imperiled in continued private land management during the next fifteen years, i.e. the life span of the RMP.

7. Panther Canyon is owned principally by Pacific Power and Light as well as the U.S. Forest Service. Protracted management by these agencies will not adversely impact the scenic quality of the canyon. BLM has chosen to focus management in an area of ac-

celerating public use and public visibility, i.e. the Klamath River proper.

8. Shasta Grass Lake falls within the sphere of influence of the U.S. Forest Service. The Klamath National Forest has expressed continuing interest in stewardship of the area. BLM can complement the interests of the Klamath National Forest by focusing elsewhere in the region, e.g. Shasta Valley.

The Draft RMP was designed to provide a broad array of land use management alternatives focused on a subarea, i.e. "Management Area", basis. The intent was to enhance the involvement of the local citizenry and maintain the document length within the suggested limits of the Council on Environmental Quality, i.e. 300 pages. The maps of the Draft RMP provided an opportunity for readers to graphically compare land use management alternatives by area and hierarchy of resource condition objectives. When coupled with the text, the reader could carefully compare the specific goals and actions intended by BLM.

COMMENT 183

While the Trinity Management Plan appears to contain many laudable objectives, its lack of detail in explaining other objectives, the methods to be used to obtain those objectives, and the likely impact of those objectives renders this section seriously flawed.

There are several decisions apparently made by the BLM as to the management of the Trinity River area which are not explained and the effects of which are not as detailed as is necessary to provide the "high quality" information required by NEPA. These decisions include, among others, the decisions (1) to merely maintain the degraded riparian habitat and anadromous fisheries of the Trinity River rather than to improve them (as in the Enhancement of Natural and Cultural Values Alternative), (2) to apparently allow some logging activity in the area (unlike the Enhancement alternative). Moreover, since these decisions are never discussed and since the format of the document is so poor, only the most careful readers of the document will recognize that the skeletal lists of objectives reflect important decisions.

RESPONSE 183

Please refer to BLM's response to Comment 324. The Land Use Allocations for the Trinity River states: "All available commercial forest land would be managed for the enhancement of the resource values". This means that forestry practices would only be allowed if they benefit other natural resource values. Cultural resources are protected by statute. In addition, the RMP stated that key cultural resource sites will be withdrawn from mineral entry. Locatable mineral exploration and development can and is occurring within the confines of the Trinity Management Area. Our proposed action will limit and restrict this activity in certain areas where mining is incompatible with other resource values. Decisions in this Final RMP, including mineral withdrawals and Appendix E, implement this action.

COMMENT 184

TRINITY M.A.:

The apparent rejection of the plan for improving and protecting the natural and cultural values of the Deer Winter Range area (see "Enhancement" alternative) is not explained. While this area is adequately described, there appear to be important natural and cultural values which BLM should protect, including Bald Eagle habitat, anadromous fisheries and riparian habitat, visual qualities, and recreation opportunities. Similarly, the apparent rejection of the possibility of maintaining the existing open space opportunities for the Weaverville Sphere of influence are not explained.

RESPONSE 184

The proposed action contains items which protect Bald eagle nesting territories and spotted owl use areas. Additional spotted owl critical habitat areas would be protected under the Endangered Species Act. Cultural resources are protected by the Archaeological Resources Protection Act and the National Historic Preservation Act. Protection/interpretation of cultural resources are listed as objectives of the proposed action. Enhancing recreation and maintaining visual quality is an objective of the proposed action. Acquiring lands with higher resource values i.e. deer winter range, anadromous fisheries and riparian habitat and etc. was the primary purpose for exchanging lands within the sphere of influence of Weaverville and other communities. These lands are of marginal benefit to wildlife species including deer because of the intrusion of man.

COMMENT 185

There are slightly different problems with the plan for the North of Trinity River/Deadwood Creek/Indian Creek region. It is not clear from the Map and description whether the area to the west of Tunnel Ridge, including Brock Gulch, is to be considered as part of this area. If it is, the Map should point directly to this area, and the two Maps should use the same names for the same areas. As it stands now, the document confusingly appears to call the same area "Deer Winter Range" for one alternative and "North of Trinity River" for another,

RESPONSE 185

The Brock Gulch parcel is part of the North of Trinity River unit. This has been clarified on the map, e.g. Map 3-5a. We are keeping the name "Deer Winter Range" because that is the primary management objective for that area in that alternative.

COMMENT 186

The proposed objectives for this region (North of Trinity River/Deadwood/Indian Creek) are confusing, ill-defined, and poorly explained. The apparent plan to acquire lands is not supported by any description of the public values of the lands to be acquired.

RESPONSE 186

Resource condition objectives are the principal goals of long-term (15 years) land management for a given geographic area. The resource condition objectives for the area adjoining the Trinity River corridor were described on Page 3-47 of the Draft RMP. A brief explanation of each includes:

1. "Improve the long-term supply of forest products from available commercial forest lands". Much of the lands within the North of Trinity River and Indian Creek portions of the polygon are privately owned and understocked, i.e. not planted with conifers to the carrying capacity of the land. The BLM would acquire these lands via exchange to implement a reforestation effort to provide forest products in a sensible manner well into the future. Moreover, consolidation of public lands will enhance BLM's affirmative management effectiveness.

2. "Maintain the quality of existing deer winter range". This portion of the deer herd habitat is considered critical. Through vegetative management, e.g. burning and forest management, BLM can maintain the desired plant community necessary to sustain this habitat for use by the wintering deer herd.

3. "Provide enhanced access for semi-primitive motorized recreation opportunities and to Native American Indian heritage resources". Two of the planning issues for the RMP were to address recreation and access. Consolidation of public lands within this portion of Trinity County would increase the amount and variety of recreation opportunities for the public in general and complement BLM's present emphasis on river oriented recreation. A strong concern of local Native American Indians was their limited accessibility to traditional sites and resources important to their cultural identity. BLM intends to increase the opportunities of these people to access and utilize important sites and resources through consolidation in lower Indian Creek and in areas adjoining the Trinity River corridor.

4. Self-explanatory.

5. Self-explanatory.

6. "Protect the historic resources of the Deadwood area and Indian Creek townsite". The historic resources of these areas are principally attributed to early mining activity. The RMP is the appropriate place to identify values to be protected from subsequent surface disturbing actions especially including locatable mining activities approved by BLM pursuant to 43 CFR 3809.

7. "Maintain the existing visual (i.e. "scenic") quality of BLM administered lands". Some of the public lands adjoining the Trinity River corridor are within the viewshed of the River. Moreover, some of these lands are classified as VRM II meaning that no significant long-term changes to the setting are permitted. BLM intends to protect this scenic quality. Conversely, areas of lower rating, i.e. VRM III, will be managed in a less stringent manner permitting some or continuing some impact(s) to the scenic quality.

COMMENT 187

The [commentor] supports the idea of acquiring land between the two areas of the Whiskeytown-Shasta National Recreation Area ("The Recreation Area"). However, it has grave reservations about the proposed use of the land. First, the document does not explain the management plan for this large tract in sufficient detail. The reasons for choosing the proposed action for the Interlakes Special Recreation Management Area ("Interlakes") are not presented, and the likely impacts of this decision is not described. For example, the RMP/EIS does not explain why this area will (apparently) be managed primarily (or solely?) to benefit motorized recreation, with almost no plan for non-motorized recreation, which is likely to have much less impact on other resources. Moreover, the document inadequately describes what methods will be used to enhance the area for motorized use. Will trails and roads be built?

RESPONSE 187

The dominant land use within the Interlakes SRMA is motorized recreation. Most of this area is occupied by the Gene Chappie/Shasta Off-Highway Vehicle Area which was established during the early 1980's specifically to provide a durable and controllable environment for the recreational use of off-highway vehicles. The prescription for the Interlakes SRMA reaffirms this land use allocation.

COMMENT 188

The plan's lack of detail for Shasta MA violates NEPA in other respects as well. The document fails to explain the reasons for and the likely impact of the following decisions, among others: (1) its apparent decision to "improve the long term supply of forest products" (whatever that means) rather than to do so only if not inconsistent with other cultural and natural resources (unlike in the "Enhancement" alternative), (2) its apparent decision to only "maintain" rather than "improve" special status species habitat, (3) its decision to maintain opportunities to explore and develop minerals, apparently regardless of the impacts on other resources, and (4) its decision to identify a "suitable" site for a regional firing range (apparently not allowed in the "Enhancement" alternative).

The plan for the West of French Gulch area contains similar problems. For example, the document fails to explain its reasons for and the likely impacts of the following (apparent) decisions: (1) to only protect historic elements of the French Gulch and Deadwood mining districts which are "significant" in some undefined way, (2) to maintain the long-term sustained-yield of forest products instead of protecting other values, (3) to "enhance semi-primitive motorized recreation opportunities", rather than non-motorized activities, (4) to issue new grazing leases, and (5) to allow continued exploration and exploitation of minerals.

RESPONSE 188

Impacts of the land-use management alternatives are identified within Chapter 4 and compared within Table 3-2. Resource specialists considered the different levels (intensities) of management when assessing impacts. Where different terms were used within the text of the plan, but different levels of management intensity were not intended, the text was modified. Please refer to BLM's response to Comment 310.

COMMENT 189

The [commentor] opposes the remainder of the Management Plan for this MA [Yolla Bolly Management Area]. The plan appears to be simply to exchange or sell the remaining lands within this resource area. However, the RMP/EIS contains no inventory or study of the resources of these lands and very little information about their value, other than to say that recreational use is infrequent. Before determining that these tracts are eligible for sale or disposal, a full inventory of these lands should be made available to the public, and the possibility of exchanges within the MA should be investigated. For example, BLM should investigate obtaining private parcels in the Middle and South Fork Cottonwood Creek watersheds and to the east of the Yolla Bolly Wilderness area to protect the outstanding values of these areas.

Even if the Middle and South Fork Cottonwood Creek are not designated Wild and Scenic Rivers, the property in the watershed of these creeks should not be disposed of to private interests and should only be transferred to other public agencies if their outstandingly remarkable values can be protected.

RESPONSE 189

Under the proposed action, BLM administered land within the proposed corridors of Middlefork Cottonwood Creek, Beegum Creek and South Fork Cottonwood Creek will continue to be managed by BLM as if the rivers were an actual component of the National Wild and Scenic Rivers Act until the suitability issue is resolved. The remainder of public lands within the management area will be either transferred to the Trinity National Forest or available for exchange or sale. Prior to any disposal of public land, an intensive survey of resource values is made and a site specific NEPA document (e.g. Environmental Impact Statement or Environmental Assessment)... is written. Public involvement will be solicited during the preparation of these environmental documents.

COMMENT 190

We have received and looked over your management plan and would like to submit our name for consideration for land under the title of (Transfer to another agency). Also lands that are not proposed for transfer. We would like a chance to manage these other parcels because we were the original keepers of the land. We think, due to the fact, that we have ancient knowledge plus recent education that we could do a very good job.

The first piece is on "Page 3-51, No. 4, 50 acres near Hayfork (W. 1/2 Section 13, T. 31 N., RA. 12 W.) are suitable for community development purposes as reservation for Federally recognized Indian tribe(s). If congressional sponsorship is unavailable, offer for exchange to any party after five years from approval of the final (RMP).

Our hopes are to be recognized before the five years are up.

The other parcels we are interested in are: S.E. Section 13, T. 31 N., R 12 W. and N.E. Section 24, T. 31 N., R 12 W. the other parcels are: W. Section 6, T. 31 N., R 11 W., around Ewing Reservoir.

There are two other pieces of ground that we would like to address as, "cultural resource sites", on Page 3-42 C. Remainder of Management Area. (Location omitted).

We would like to have archaeologists investigate this property thoroughly so we may retain any artifacts.

The other piece is: [location deleted from public record to protect the resource] where the Indians found a magnetic pull there, which we think helped to hinder the early surveyors. Up the [location deleted from public record to protect the resource] is a mineral spring that the Indians used. We would like the mineral springs designated as a "cultural resource site".

In closing, please take into consideration that you are trying to save plant life, animal life, certain areas of beauty, recreation, cultural areas, endangered species, also ways for people to continue to make a living in Trinity County. PLEASE don't overlook the local Native American. I don't know what category we fall under, but I think we need to be considered.

RESPONSE 190

If the Nor-El-Muks receive federal recognition within the time frame allocated, then, with Congressional sponsorship, they would be eligible to receive transfer of the described lands near Hayfork as a reservation. Otherwise, we would welcome an R&PP application within this time frame.

BLM welcomes help in managing public lands through various processes including informal watchguarding for illegal activities– reporting any such incidents to BLM– volunteer assistance in various ways such as in campground maintenance, archaeological work, botanical studies, cleanups, etc.; participation in general and specific planning and plan implementation, and in other ways. The Nor-El-Muks could enter into a cooperative agreement with BLM to undertake various actions beneficial to the public. Please refer to BLM's response to Comment 161

The area of public land near the Weaverville Airport has been intensively surveyed for archaeological sites. No prehistoric or Native American sites were identified, although historic mining in the area has been extensive and such actions may have led to their destruction.

The [location omitted] site is a multi-component site containing primarily historic features over what appears to be a small Indian encampment, although scientific studies have not been conducted. It has been identified as an archaeological site within our records and one prehistoric artifact has been recovered and can be loaned to the tribe on a long-term basis. The mineral spring site near [location omitted] is unknown to us and we would appreciate further information to include in our designated sites files.

Native Americans and their concerns and values are an integral component of our management of public lands.

COMMENT 191

I disagree with the rationale for the Scott Valley proposed action because it places too much emphasis on the Siskiyou County General Plan. General plans are easily and sometimes frequently amended. I also feel that the assessment of the value of this land is understated for the same reason as it was for the Yolla Bolly area.

RESPONSE 191

An analysis of the rationale for the proposed action for Scott Valley Management Area is listed in Chapter 3, under "Rationale for the Proposed Action" and for the Yolla Bolly Management Area, chapter 3, "Rationale for the Proposed Action". These alternatives were selected because of the limited resource values found in these two areas. Access can only be accomplished in these areas through the "Condemnation Process", this process generally requires court action and is used only for right of ways and in areas set aside by congress, i.e. National Conservation Areas, Nation Parks, etc.

BLM realizes that the Siskiyou General Plan can be changed by amendment, however, BLM does feel that Siskiyou County places a considerable value on its natural resources. The Bureau does not feel that growth in Siskiyou County would significantly affect the Siskiyou General Plan during the 15 year period that the Redding Resource Area Plan will cover.

COMMENT 192

YOLLA BOLLY AREA:

I recommend that the BLM retain, acquire and consolidate lands in both the Yolla Bolly and Noyes Valley areas into larger, more accessible parcels. If that action is not feasible, then acquire access rights of way so that the public may utilize public land. Public access should be restricted to non-motorized traffic.

I strongly disagree with the assessment that this land has limited public value. I have used the Yolla Bolly area for recreation for 20 years and many times I have wanted access to the BLM lands for mid and late season hunting. This area has low recreational use because of the poor

access, however, demand for this area is much greater than is stated in the plan.

RESPONSE 192

First, please refer to the response for Comment 191. In addition to this response we offer the following. As discussed in Chapter 3 under the Rationale for the Proposed Action for Scott Valley Management Area, landowners are understandably reluctant to allow additional public access to public lands within and adjoining their holdings. Moreover, these landowners have expressed no interest in selling their holdings. Since improvement of public use opportunities in Scott Valley is very limited, BLM has determined that exchange of the scattered public lands is prudent.

Similarly, legal public access to BLM administered public lands in the Yolla Bolly Management Area is quite poor. The proposed action, as described in Chapter 3 under Administrative Adjustment Alternative, would transfer some parcels of public land to the administrative jurisdiction of the U.S. Forest Service to improve access and enhance management efficiency. Although some public use may occur on the residual public lands, the use opportunities and resource values are limited. BLM has determined that exchange of these lands for private lands elsewhere (for instance near the Sacramento River) will protect imperiled natural resources and provide new public use opportunities, while not adversely impacting the forsaken values (principally deer winter range habitat).

COMMENT 193

Sacramento River - The former railroad right-of-way between Shasta Dam and Keswick would be ideal for an extension of the much-used Sacramento River Trail. I believe that its use by hikers and (non-motorized) bikers is more appropriate than turning it over to off-road vehicle users; there is ample space elsewhere for the noisy and destructive activity of ATV's. The pedestrian trail would permit many to take advantage of the scenic beauty and opportunity for quiet observation and appreciation of the riparian habitat.

RESPONSE 193

The railroad grade between Shasta Dam and Keswick Dam is under the jurisdiction of the Bureau of Reclamation, and is already closed to motor vehicle use. BLM supports jurisdictional transfer of the railroad grade to BLM for development and public use as a non-motorized recreation trail.

COMMENT 194

The basic problem we see with this RMP/EIS is too much focus on the impact topics publicly identified as significant. The RMP is the document addressing Redding's management of all resources for the next 10 to 15 years, not just the significant ones. Extra detail on these topics is appropriate but not at the expense of the remaining resources, including mineral resources. Likewise, NEPA requires equal consideration of all natural resources, meaning that impacts to the less significant resources caused by the alternative management plans must also be addressed.

RESPONSE 194

BLM made a decision early within the planning process to generate a user friendly and readable document. While BLM recognizes that a myriad of insignificant impacts to a multitude of resources would occur through RMP implementation, we chose to concentrate analysis and discussion on significant impacts within the environmental consequences section. This is in compliance with NEPA and the implementation regulations found within the Code of Federal Regulations. 40 CFR 1502.2 specifically states that "Impacts shall be discussed in proportion to their significance. There shall be only brief discussion of other than significant issues..."

COMMENT 195

CLEAR CREEK:

Wants to see 700 acres disposed of (beyond corridor) as in preferred alternative Also, wants the plan to state that BLM has no condemnation authority.

Boundary on Clear Creek should be 1/2 mile back from creek.

RESPONSE 195

The proposed action for the Clear Creek Area recommends the disposal of approximately 280 acres north of the Clear Creek Road to a conservation group, or after two years, to any interested entity, and the acquisition of lands along Clear Creek within a defined corridor. The width of the corridor to be acquired was extended in the final RMP. BLM has no intention of using it's condemnation authority for the purchase of lands in the Clear Creek Area. BLM has condemnation authority by law, to acquire rights of ways and to acquire lands within areas set aside by the U.S. Congress for specific purposes.

COMMENT 196

BLM should retain lands in Big Chico Creek vicinity.

RESPONSE 196

Big Chico Creek was never considered to be designated as a special recreation management area due to the very small amount of BLM administered public land. However, it has been re-assessed as eligible for inclusion in the National Wild and Scenic River System.

BLM will retain all lands in the interim Wild and Scenic River corridors shown in this Final RMP until the U.S. Congress passes legislation designating the creek/river as a component of the National Wild and Scenic River System (NWSRS). If the creek/river does not become part of the NWSRS then the public lands within the study corridor will be managed or disposed of in the same manner as the other public lands in the remainder of the Ishi Management Area, as described in Chapter 3.

COMMENT 197

Should shift emphasis from resource exploitation to wildlife.

RESPONSE 197

The proposed actions for all management areas have identified management actions to protect and enhance wildlife resources. The RMP embodies a substantial BLM commitment to wildlife.

COMMENT 198

More lands along Clear Creek above Clear Creek Road should be acquired because of possibility of dam below Placer Street (height of new bridge as evidence).

RESPONSE 198

BLM is not aware of any plans to build a dam on Clear Creek below Placer Street. A dam at this location would not affect any public land acquisition along the lower portion of Clear Creek. Since BLM has determined that Clear Creek above Clear Creek Road bridge is eligible for inclusion in the National Wild and Scenic River System, development of a dam is problematical.

COMMENT 199

Right-of-ways for roads on BLM lands should be built to local standards, not county standards.

RESPONSE 199

Road construction on public lands must meet either meet BLM or local standards, whichever is more stringent.

COMMENT 200

Of particular concern is the Proposed Action Alternative of the plan, which offers a great deal more land for sale or exchange than is indicated on Map 3-5a of the Plan document. It is our understanding that all of the BLM land outside the Interlakes Special Recreation Management Area would be available for sale or exchange not just the few areas marked with "S". The lands unmarked would first be available for acquisition by Government entities through the Recreation and Public Purposes Act and then offered for sale or exchange to any private individuals. Although the City and County General Plan would limit land-use activities for these areas, the County's General Plan is less specific and could allow uses near the City or tributary to a stream that eventually reaches the City and River. Also, such uses may not be consistent with the City's General Plan.

The plan is unclear on which lands will be exchanged. The land available for exchange or sale is designated on the legend of each plan by "S", but no notation is attached to land that can be exchanged, but not sold.

In some respects, the plan's significant comments are obscured by a preceding non-related and minor statement. For example, on Page 3-61, comment E-11 states the following:

Vehicle use is limited to designated roads and trails. All public-land interests not noted in IIA-E(1-9) are available for exchange.

It is recommended that an entire section of the report be specifically devoted to the implication of the last sentence of the above statement and be entitled "impacts Associated with Sales and Exchange of Public Lands".

The [commentor] supports the general policy of exchange of scattered lands that are difficult to manage and which do not have any significant resource value for higher-value resource lands including those along Clear Creek and the Sacramento River. The [commentor] also recommends that all BLM lands proposed for transfer or exchange or sale be clearly identified in the narrative and maps of the final plan document.

Areas of the proposed Action Plan map are designated for retention, but also have an "S", meaning they are available for sale. In some cases, the parcels for sale are specifically identified; but in most cases, they are not. This should be clarified.

RESPONSE 200

A. In consistency with the City of Redding General Plan, Section 202(c)(9) of the Federal Land Policy and Management Act of 1976 obligates BLM to coordinate land use planning and management activities with non-Federal entities..."to the extent consistent with the laws governing the administration of the public lands"... BLM must also ..."assist in resolving, to the extent practical, inconsistencies between Federal and non-Federal Government plans..." The proposed action as embodied in the Draft RMP on Pages 3-59 through 3-62 and accompanying Map 3-5a is a BLM effort to affirmatively discharge these obligations.

In developing land use management alternatives, BLM used the land use element of Shasta County and the City of Redding as references. Public land administered by BLM was designated as "public facility", "open space", or "greenway" in virtually every instance in these local plans. BLM has encouraged a philosophy of (first) identifying the overall public values or needs and (second) considering how BLM administered public lands meet these values or needs. Moreover, how could BLM administration of the public lands address the four planning issues of this RMP, as discussed on Pages 1-4 and 1-5 of the Draft RMP

BLM's response to these challenges within, and immediately surrounding Redding, is the consolidation of public land within the Interlakes Special Recreation Management Area and adjoining the Whiskeytown Unit of the National Recreation Area. BLM would make approximately 5,800 acres available for transfer to state, local, and non-profit organizations under the Recreation and Public Purposes Act. Scattered public lands and parcels surplus to other specific agency needs would be used as a basis for exchange to acquire higher public values in areas like: a greenway along the Sacramento River stretching from Redding to Shasta Dam, the length of Clear Creek, between Swasey Drive and Muletown Road, the watershed of Keswick Reservoir, and the mountainous terrain between Keswick Reservoir and French Gulch. Consolidation in these areas will benefit Redding and regional residents alike by providing increased formalized opportunities for non-motorized recreation, motorized recreation, safe firearms use, and involvement with natural surroundings.

Parcels of public land identified for disposal via exchange or transfer under the Recreation and Public Purposes Act must be fully considered for a host of concerns as noted on Pages 3-2, 3-5, 3-6, 3-12 and 3-13 of the Draft RMP. Furthermore, transfer of BLM administered public land does not necessarily mean a public value must be lost. Presently, the citizens of Redding, and the region have tremendous interest in establishing a network of trails. If BLM administered public lands contains planned trail segments, local agencies working with BLM should ensure the protection of these opportunities through perfection of rights-of-way.

B. Two unrelated statements were combined in Section II E-11 by mistake during one of several editorial changes. These statements have been segregated in the Final RMP.

C. In an attempt to clarify which public lands are available for disposal via exchange or sale, BLM has modified the Final RMP to reflect the following:

1. All lands identified for disposal to the private sector (other than via the Recreation and Public Purposes Act) are available via exchange. The only exception to this policy is if small lots are sold to resolve inadvertent trespasses as noted on Page 3-5 of the Draft RMP.

2. Maps in the Final RMP no longer use the "S" designation. All public interests not specifically outlined and discussed on any given map are available for disposal via exchange. A footnote has been added on the legend of each map to clarify this intention.

3. A common concern to many reviewers was an interpretation of the Draft RMP as a lands disposal document. BLM has determined to reposition the scattered public lands under its jurisdiction. Exchanges and some transfers will be used to consolidate public lands in areas of significant public value. As demonstrated on Table 4-1 in Chapter 4 of this Final RMP, the amount of public land acreage under BLM administration would remain stable under the proposed action.

D. Impacts reasonably expected due to the transfer of BLM administered public lands were addressed by land use management alternatives in Chapter 4 - Environmental Consequences of the Draft RMP. These impact assessments considered certain assumptions including those for "Land Use and Community Development" as noted on Pages 4-2, 4-3, and 4-4 of the Draft RMP.

COMMENT 201

The [commentor] is also interested in knowing more about the off-road vehicle park within the Interlakes Special Mountain area. Although the Plan discusses the idea briefly, nothing is detailed about the environmental impacts of the park, its management, or its origin. For example, why is it necessary to have the park?

RESPONSE 201

The Gene Chappie-Shasta Off-Highway Vehicle Area was established in concert with the 1982 Redding Management Framework Plan Amendment and the subsequent Environmental Assessment which analyzed the overall levels of impacts due to designation and use. This Area was determined suitable for enhanced motorized recreation opportunities in response to public recommendations. Conservation groups who recognized the need to focus this type of activity in a non-sensitive area underscored the validity of the importance of this area to the user groups. The area is currently being

managed and developed using State of California off-highway vehicle grant funds.

COMMENT 203

The suitability of Clear Creek gravels for salmon spawning was investigated in 1965 and 1982 by analysis of the size composition (sieve analysis) of streambed material located in used spawning riffles. None of the 18 samples taken in 1982 met the Department of Fish and Game criteria for fine material (too much sand and silt), while three-quarters of those taken in 1965 did. This data indicates that the quality of Clear Creek spawning gravel has declined markedly since 1965 due to an increased volume in sand-size material, most of which is decomposed granite. The maintenance of some undisturbed upland areas in public ownership will help prevent increased erosion, and a trade of this land to private developers would likely result in increased sediment production.

The need for maintaining BLM lands adjacent to the Clear Creek floodplain is further supported by the fact that the [California] Department of Fish and Game has plans to enhance the anadromous salmonid habitat by providing a fish passage at Saeltzer Dam. This enhancement effort and expense may be significantly lessened if the stream is clogged with sediment from BLM uplands that are sold or exchanged and then graded and/or mined.

Soil Erosion, Surface Water Quality and Air Quality - The EIS and plan only evaluate the impacts on seven resources and concludes that impacts on air quality, soil erosion, and surface water quality will not be impacted or affected by any of the six land-use alternatives. For example, Page 1-9 concludes that "no proposed land use allocation would significantly degrade nor remarkably improve soils stability and conditions within the planning area. Any possible impact to soils would be considered prior to BLM approval or authorization of any surface disturbing activity".

This statement is somewhat contradictory and leads the reader to conclude that BLM simply doesn't know if the plan will have an impact until there is a specific project proposal. If this is true, then it should be made clear in the report. It is recommended that this statement be clarified and BLM officials review the document for clarity from the viewpoint of the lay person who must digest the report.

RESPONSE 203

The suitability of spawning gravel has declined between 1965 and 1982 because of the silt and fine material deposited in the stream. This was thought to be due to an increased volume of fine materials being deposited in the stream from surrounding uses. Although there has been an increase of fine materials in the stream, the construction of Whiskeytown Dam and the corresponding decrease in flood flows has probably contributed as much or more to the accumulation of fines in Clear Creek than the erosion from adjacent lands.

Existing State and County regulations governing construction and development, if enforced, should be sufficient to minimize erosion, or an increase in fine sediments, from reaching Clear Creek if this area should be developed. The soils in this area are not atypical of other soils in the developed foothills within the area.

It is not conceded that the proposed transfer or disposal of lands in the Clear Creek watershed are counter productive to restoring the fishery and wildlife values to Clear Creek. The position of the BLM remains that there will be no significant degradation to the soil resources as a result of the land use allocations recommended by this RMP. Therefore, the impacts to soils are not discussed in detail in this plan., Individual projects (exchanges, timber sales, restoration projects, etc) require a site specific Environmental Analysis (EA) which would determine any negative or positive impacts to soil and any other resource on the subject public land.

COMMENT 204

Of real concern is the fact that thousands of acres would be set aside under the "Proposed Action Alternative" for sale or exchange without knowing the intent of the use by the new owner and without any consideration for steep slopes,. access, floodplains, or whether the land is buildable. It should be noted that within Shasta County approximately 5,500 acres (8.5 square miles) are proposed under the action plan to be available for sale, exchange, and acquisition by Government agencies. If these lands have not been acquired by government entities within two years after the Bureau's plan has been adopted, then they would be available for exchange to any private party. The City of Redding needs more time to project into the future to see what the community's needs might be and how BLM lands may be used to fulfill the needs. It is recommended that more time be granted to allow government agencies to plan future land-use needs for BLM lands. We recommend a minimum of a five-year waiting period for lands within a four-mile radius of the City's boundary and ten-year waiting period for lands within a ten-mile radius. These lands are a critical resource to the City in meeting the park, education, and recreation needs of the community since the

City's population is expected to almost double in 20 years.

RESPONSE 204

Once land is patented to private parties, any change of use will need to be approved by the local planning department. As to the two-year limit for government agencies to submit land use needs on public lands west of Redding, we feel this is an appropriate amount of time for the City or County to analyze its needs for public lands. The lands have been available to the City and County for acquisition for nearly two decades. However, we have not had any great amount of interest by them. Indeed, some of the lands that we have patented to the City and other governmental agencies under the Recreation and Public Purposes (R&PP) Act have not been utilized for their intended purpose and are in danger of reverting back to the United States. BLM is also willing to identify public values in cooperation with local agencies and ensure their future protection prior to disposal of federal title, e.g. right-of-way to protect a stream or recreational corridor.

COMMENT 205

RESIDENT FISHERY IMPACTS:

This resource is briefly mentioned on Page 2-9. The resource ought to be examined relative to sedimentation, erosion, and water-quality impacts of the Proposed Action Alternative. The impacts of gravel and road and drainage construction could adversely impact the resident fishery of Clear Creek.

RESPONSE 205

Impacts for anadromous salmonid habitat were included in the document in the Environmental Consequences (impacts) section of Chapter 4. Due to the limited amount of public land and ubiquitous nature, resident fisheries was dismissed as a significant impact topic in Chapter 1 of this Final RMP.

COMMENT 206

Opportunity to Lessen Recreational Shooting Conflicts Along the Sacramento River and Tributary Creeks - Page 2-3 - briefly discusses the conflicts of recreational shooting areas relative to passive recreational uses of BLM lands, but does not directly seek to resolve this issue.

On Page 3-59, Objective No. 8 discusses the matter of identifying a site for a regional firing range somewhere in the Interlakes Special Recreation Management Area.

It is recommended that the plan include an action-management and land-use strategy that focuses on an objective to phase out shooting along BLM properties bordering urban areas, creeks, and river corridors by providing a site that is convenient for public use. This strategy would open the door for the City of Redding or County of Shasta to consider the adoption of ordinances prohibiting shooting along the river and creek corridors, which is a significant problem and hazard to trail users along the [Sacramento] River and creek corridors of the region.

RESPONSE 206

As noted on Pages 1-4 and 1-5 of the Draft RMP, this planning process attempted to resolve four planning issues and make other pertinent management decisions. As part of addressing the overall recreation management issue, BLM identified the need to establish a regional firing range in cooperation with local interests. This is evidence of BLM's affirmative interest in helping resolve this thorny local concern. Repositioning of public lands will also assist in alleviating some of the current problems. The closure of specific areas retained or placed in BLM stewardship is dependent on passage of local ordinances and/or development of BLM activity plans initiated pursuant to the management actions specified in the final RMP. In these cases, BLM will work closely with various user groups and local agencies. The RMP level of planning, however, is an inappropriate stage for consideration of these very specific decisions.

COMMENT 207

One of the commendable objectives of the plan is to consolidate BLM land holdings in the Interlakes Special Recreation Management Area for off-road, motorized, recreation purposes. Land exchanges would facilitate this consolidation. The concern is that intense erosion may occur from off-road vehicle use causing erosion along tributary drainage courses of the River. There is also the problem of air-quality degradation caused by dust particulates from this use. It is recommended that the plan incorporate an action-management strategy for the off-road recreational-vehicle area that addresses the mitigations for these concerns.

RESPONSE 207

Soil, air, and water quality monitoring is an integral part of the OHV area planning, development and operation. Funding for development of the OHV area is provided by the State of California OHV Grant Program. A provision of use of these grants is that 1/3 of the operation and maintenance funding must be used to directly benefit conservation and resource protection activities. Newly adopted State soil loss standards are being implemented within the OHV area. The Shasta County Air Quality Control Officer has provided standards and offered to assist BLM in measurement of particulate matter generated within the established OHV Area. New

development has incorporated use of surfacing to reduce dust in areas of concentrated use.

The State Water Quality Control Board currently monitors several sites within the OHV Area. Other sites will be established as the acquisition program proceeds and development occurs.

COMMENT 208

The Resource Management Plan does not discuss the opportunity of utilizing or reserving key BLM properties within the four-county region for future reservoir projects to impound water. The last five years of drought have made water banking an important regional issue which should be addressed by the plan alternatives.

RESPONSE 208

The BLM parcels that we have identified for disposal are shown on maps that also show drainage and creek corridors. We don't feel that we need to specifically identify those parcels otherwise.

COMMENT 213

Sacramento Island. The plan maps should indicate where Sacramento Island is located and who owns it. It is believed that the State Lands Commission may own it instead of BLM.

RESPONSE 213

"Sacramento Island" is no longer an island, rather, it is now contiguous to the lands east of the Sacramento River and adjoins City of Redding property (the intended Knighton Road softball complex). The subject property is owned by the United States of America. The land use management alternative maps in the Draft RMP accurately reflected the location of this federally owned property immediately south of the western terminus of Knighton Road.

COMMENT 218

Page 3-61, Item E-3 states the following: "Transfer via R&PP or exchange six parcels of public land encompassing approximately 500 acres to the City of Redding to satisfy community development needs. Offer for exchange to any party after two years from approval of the Final RMP." the attached map identifies several parcels of BLM land close in to the urban area that the City and school districts are interested in acquiring within the next year. Not shown on the map is a 200-acre site northwest of the City needed for a firing range and other parcels around the Spring Creek Dam area needed for power generation.

Parcel 20 is needed by the City for a future landfill site. When added to a larger City-owned site located immediately west, a box canyon is created, making it ideal for a landfill.

Parcel 19, adjacent to Parcel 20, is needed for a buffer between the landfill and the residential area. It also has some recommended value.

Parcels 9, 13 and 15 are needed for a school site.

Parcels 4 and 5 are needed for recreational trail and park and school purposes.

There are many other potential urban uses for BLM lands that need to be researched, including:

a. More school sites

b. Parks

c. Street right-of-way.

d. Fire training center for North State Fire Departments (City, County, State, and Federal agencies).

e. Land and utility right-of-way for sewer, water, electric, and storm drains.

RESPONSE 218

The BLM will entertain any and all applications that meet the requirements of the Final RMP and federal law.

COMMENT 219

Page 3-59 , Item I(A)7 states that the plan for the Interlakes Management Area should "maintain opportunities to explore and develop freely available minerals on public lands.

The Interlakes area is tributary to the Sacramento River and just downstream are the City's and Bella Vista's water-intake systems. The concern is that the normal restrictions for mineral extraction in this area may not provide the safeguards for the City's domestic water supply and the fisheries of the River.

RESPONSE 219

Appendix E standards in the Final RMP will apply to mining operations in this area. Site specific stipulations will be applied when warranted and allowed for by regulation. Most public lands along this portion of the Sacramento River are currently withdrawn from mining and it has been recommended that these withdrawals continue. The City of Redding and Shasta County could also adopt California Surface Mining and Reclamation Act type ordinances, which would be applicable on

Federal lands. These ordinances would address the impacts of surface mining on other resources, including water quality.

COMMENT 221

Much of the land associated with Spring Creek Pumped Storage Project (SCPS) power-plant site and transmission rights-of-ways ultimately may be BLM land.

It appears from your Resource Management Plan that none of the BLM lands potentially impacted by SCPS are subject to specific action under the Plan. However, within the text of the Plan (e.g., Page 3-55), BLM notes "(a)ll public land interests not noted...are available for exchange". This raises some concerns as it could affect the particular property owners we may have to deal with in acquiring properties and/or rights-of-way. Thus, the City of Redding Electric Department recommends that the Resource Management Plan include a provision or guarantee that prior to land exchanges or sales occur, BLM contact the City as to the proposed disposition of BLM lands in the Shasta/Trinity Management Area within the boundaries of T. 31N./T. 33N., and R. 4W./R. 6W.

Although specifics are unknown at this time, the Electric Department also has concerns about properties located new the Redding city limits, as future BLM administrative actions would impact other transmission rights-of-way. Again, we would appreciate being kept informed of the disposition of properties in this area, especially those located in the vicinity of Quartz Hill Road (T. 32 N., R. 5 WA.)

RESPONSE 221

Regulations concerning notification on pending exchanges (43 CFR 2201.1(e)) require us to notify the Governor, the head of the governing body of any political subdivision having zoning responsibilities, and the head of any political subdivision having administrative or public services responsibility in the geographical area within which the public lands are located. There is no need to further guarantee this in the Final RMP.

COMMENT 222

Road Access - It is recommended that prior to selling or exchanging BLM lands, a plan or provision for public-road access be included in the exchange or sale. This provision would ensure that there is a cohesive road system for access to other BLM lands as well as adjacent private lands.

RESPONSE 222

A small portion of public land acreage borders along public roads. If the parcels are to be disposed of in pieces that might isolate or "land-lock" the remaining public lands, provisions will be made in the patents to provide access to those residual parcels.

COMMENT 223

Are any of the lands with active mining claims available for exchange or sale? If so, this should be noted because these lands have the potential for severe environmental impacts.

RESPONSE 223

Current BLM policy prohibits the sale or exchange of any public lands which contain properly recorded mining claims. Public lands which are disposed of via sale or exchange will be subject to State and local regulations, zoning and control; e.g. grading ordinances, California Surface Mining and Reclamation Act. These controls tend to be stricter than Federal regulations, thus adverse impacts to other resources tend to be lesser when mining occurs on private lands.

COMMENT 225

The plan also suggests that the gravel mining outside the floodplain is acceptable and will not impact the fishery of the creek or increase sedimentation. No proof or mitigation is offered to support this conclusion.

RESPONSE 225

Gravel mining outside of the 100 year floodplain will be permitted subject to BLM requirements to avoid unnecessary and undue degradation and in conformance with the resource condition objectives. Existing and former extractions on federal land in this area have met this criteria. Permitted activities on private lands within the floodplain are assumed not to be impacting fisheries, which would be in conflict with State law. Mitigation will be developed on a case by case basis and is beyond the scope of the RMP.

COMMENT 228

The upland areas in question appear to have high resource values including: portions of four ephemeral tributaries to Clear Creek; significant riparian vegetation, oak woodland, and timber areas; large rock outcrops, ephemeral cascading waterfalls, and volcanic tuff; significant wildlife use by species such as quail, turkey, and dove; old roads which could serve as trails for pedestrian and equestrian traffic; and, easy public access from Clear Creek Road.

RESPONSE 228

The planning area includes thousands of "ephemeral tributaries". Unless a compelling resource need demands Federal attention, the portion of these tributaries will receive adequate consideration and protection through local agencies. BLM has , however, expanded the boundaries of the Clear Creek polygon to

include the steep slopes south of the lower portion of the stream to safeguard the scenic quality and lessen the probability of locally significant erosion.

COMMENT 229

It is recommended that BLM lands within two miles of Saeltzer Dam be withheld from trade or sale for 15 years to provide for the opportunity of developing and enhancing the fishery by the Department of Fish and Game and to allow for the potential development of the 1,000-acre Horsetown Preserve. It is further recommended that the plan specifically includes objectives, land-use allocation, and management actions addressing the proposed preserve.

RESPONSE 229

The proposed action of the RMP has been modified to extend the southern boundary of lowermost Clear Creek to the top of the bluff paralleling the stream. The area identified for retention and acquisition by BLM includes over 3,000 existing acres of public land between the Whiskeytown Unit of the National Recreation Area, Swasey Drive, and the Sacramento River. Several thousand additional acres are identified for acquisition. The approximately 300 acres of public land north of Clear Creek Road have been identified as available for transfer via the Recreation and Public Purposes Act of 1926, as amended, to a qualified organization for a period of two years following the approval of the Final RMP, i.e. after issuance of the Record of Decision.

COMMENT 230

The Bureau of Land Management, the State and the City have made considerable efforts over the years to preserve and protect the Sacramento River and Clear Creek. When viewed as a whole, these acquisitions or reservations should be considered as a logical extension of the National Recreational Area. Boating, rafting, fishing, bird watching, etc., all fit this program, which could even include Clear Creek.

RESPONSE 230

The proposed action of the Final RMP underscores the long-term commitment of BLM to protection of the Sacramento River below Shasta Dam. The development of greenways along Clear Creek and above the city limits of Redding on the River will maintain BLM's position as the agency with the largest amount of public land administration within the region along the Sacramento River and its immediate environs. Inclusion of the BLM-administered acreage within the existing Whiskeytown-Shasta-Trinity National Recreation Area is an idea with some merit. That determination and accompanying analyses are best addressed by a consortium of private organizations and public agencies possibly in cooperation with the U.S. Congress. The RMP is not (due to timing principally) a good vehicle for considering this designation.

COMMENT 231

Maintenance of some upland areas around the narrow creek corridor is desirable for diversification of habitat to accommodate species other than anadromous fish and waterfowl. The upland areas in question appear to have high resource values including significant wildlife use by species such as quail, turkey, and dove.

RESPONSE 231

Those lands that have been designated for disposal above the Clear Creek road are not necessary to maintain biological diversity along the proposed Clear Creek corridor. By acquiring lands from the slope of the foothills in the lower reaches of Clear Creek and the entire canyon above the Clear Creek Road bridge the majority of wildlife species currently using the upland areas would use the corridor, plus the diversity of species in the area would increase significantly.

The isolated lands that have been identified for disposal are influenced considerably by the developed lands uses that surround these lands. Most of the homes or industries in the area do or will use some type of fencing to delineate boundaries, which are detrimental to the free movement of wildlife species and in some cases are directly responsible for the death of various animals and birds. Chemicals used on these lands can be detrimental to wildlife and their habitat. Uncontrolled and stray domestic animals from these developed area, mainly dogs and cats have a significant affect on the wildlife using the adjoining public lands.

COMMENT 232

It is recognized that the plan and EIS are not intended to address specific projects, but sensitive BLM lands subject to erosion could be easily identified by referring to the "Shasta County Soil Survey Study". Sensitive areas could then be considered for exclusion from sales and exchange, particularly those lands adjacent to waterways like Clear Creek and its tributary areas.

RESPONSE 232

We are using the "Shasta County Soil Survey Study" and strive to seek out any other scientific studies that would give us more knowledge about the lands we manage. Before any lands can be disposed resource surveys will be conducted. If erosion sensitive areas exist, they would be given proper consideration, with

determinations made that are based on the National Environmental Protection Act (NEPA) and BLM policies.

COMMENT 250
Estates should not be split on disposals (all minerals including locatable, saleable, and leasable).

RESPONSE 250
Sales of public land and mineral estates are governed by Sections 203 and 209 of the Federal Land Policy and Management Act of 1976, and Federal Regulations at 43 CFR 2710 and 2720. Also see # 151f and # 151g.

COMMENT 251
If public lands have a high potential for mineral development, then lands should not be disposed of.

RESPONSE 251
Please refer to BLM's responses to Comments 151f and 151g.

COMMENT 252
In Shasta OHV area maintain mineral producing capabilities of mineral lands.

RESPONSE 252
As stated in the Draft and Final RMP, lands within the Interlakes Special Recreation Management Area will be available for mineral exploration and development. An exception to this will be those lands acquired using State of California funds.

COMMENT 253
Concern over validity of closure on Upper Ridge Wilderness Area (120 acres). Investigate validity of claims. Withdraw area from mining. Incompatible user (trail destruction).

RESPONSE 253
BLM's policy on when validity investigations will be conducted is found in the BLM Manual Section 3891.06. The situation at the Upper Ridge Nature Preserve does not lend itself to the performance of a validity investigation. The RMP proposes to withdraw the Upper Ridge Nature Preserve from mineral entry.

COMMENT 254
Recreational mining in Butte Creek is incompatible with other recreation uses occurring there.

RESPONSE 254
From our four year experience of administering recreational mineral collection program in the Forks of Butte Creek Recreation Area, we have not found any significant adverse environmental impacts from the regulated activities. The 1990 activity level plan for this area has addressed any undesired impacts from recreational mineral collection.

COMMENT 255
Concerned about upholding and maintaining 1872 Mining Law. (Support for existing laws).

RESPONSE 255
This concern is beyond the scope of the RMP/EIS process. Most public lands are scheduled to remain available for multiple use, including mineral exploration and development under the 1872 Mining Law.

COMMENT 256
Aggregate values on public lands are not developed enough. Recommends more disposals of placer tailings.

The highest and best use in Clear Creek is for aggregate production from the old placer tailings.

Public land should be retained for gravel values in Clear Creek. Cites historic usage in valley.

RESPONSE 256
Disposal of placer tailings from public land is largely driven by public demand. In areas deemed suitable for the discretionary action of mineral material sales, placer tailings will be disposed when they are applied for and as the BLM's budget allows.

Disposal of mineral materials from the Clear Creek area is allowed in the Final RMP, within the constraints of the stated resource condition objectives.

COMMENT 257
Limited gravel production is not in conflict with BLM's proposed action along Clear Creek.

RESPONSE 257
BLM agrees with this as noted in the Proposed Action for the Shasta Management Area in the Draft and Final RMP.

COMMENT 259
RMP should define a monitoring process for disposal of "reasonable amounts" of sand, gravel, and rock. Example: Cottonwood Creek (Reference RMP Pages 3-9 and 3-10).

RESPONSE 259
Please refer to BLM's response to Comment 150.

COMMENT 260
In Chapter 3, Page 10, I believe there is a subtitle missing between the lst and 2nd column. 3-9 discusses the Geothermal Steam Act, moves to mineral materials,

then at the 2nd paragraph of 3-10 moves back to fluid materials. The result is rather confusing. For instance, in 3-10, the penultimate paragraph, does the "No Surface Occupancy" stipulation apply to fluid mineral leases only? If not, doesn't this effectively preclude all other mineral activity, including recreational mineral collecting under permit? What types of mineral development other than fluid minerals and perhaps(?) some types of underground lode activity are viable in the Redding Resource Area without some sort of surface occupancy?

RESPONSE 260

Corrections have been made in this Final RMP. A "No Surface Occupancy" stipulation only applies to leasable minerals, as is stated in the RMP.

COMMENT 300

Some aspects of timber management are vague and need clarification. We recommend that timber be managed on a long rotation sustained yield basis. This should be done without compromising visual quality, fish or wildlife habitat, and water quality. Clear-cutting and herbicides should not be used.

RESPONSE 300

The Federal Land Policy and Management Act of 1976 (FLPMA) requires that timber resources be managed on a sustained yield basis. The rotation length of the harvest cycle would be determined by the particular management category that a forest stand was being managed under. The forest stands classified as "intensive" would be managed within a rotation that is optimum for timber production for that particular site (approximately 80 to 100 years). Areas classified as "restricted" would be subject to a wide array of biological, visual, cultural and social controls (beyond what is already required by law) and therefore the rotation would be longer than that considered optimum for timber production. Management of those areas classified as "enhancement of other resources" would center around the creation or retention of the characteristics desired for the target species or ecosystem. No timber harvest is planned for those areas classified as "not available".

Large or extensive clear cuts are not planned, however some areas may have to be clear cut as a result of fire, insect or disease salvage or silvicultural requirements. The BLM does not have a policy for a maximum size clear cut. Historically, clear cuts in the Redding Resource Area have been used with caution and have not generally been over 5 acres. Those created for salvage purposes could be larger if needed and if the site specific environmental assessment allowed.

Herbicides are not planned for use in forest management. However, the document does not preclude herbicide use if a specific need arose. Please refer to MANAGEMENT GUIDANCE AND DECISIONS COMMON TO ALL ALTERNATIVES, VEGETATION MANAGEMENT in Chapter 3.

Portions of the above discussion has been incorporated into the document for clarification purposes.

COMMENT 301

All the alternatives are governed by sustained yield unit 15 (SYU-15), Page 3. Yet on Page 1-5, new allowable sale quantities will be established which may be less than SYU-15.

RESPONSE 301

Sustained Yield Unit-15 Environmental Assessment (SYU-15) specified acceptable management practices, silvicultural methods, mitigation measures and also determined an allowable sale quantity. The practices outlined in SYU-15 are still considered valid except for the management of special status species and wild and scenic rivers. Special management situations, the possibility of reduced management intensity in some areas and the gain or loss of forested acres through exchanges all necessitate the calculation of a new allowable sale quantity which will probably be lower than the original allowed quantity in SYU-15.

Portions of the above discussion have been incorporated into the RMP for clarification purposes.

COMMENT 302

A shrinking timber supply from Forest Service lands and increased lumber and wood product demand from California residents indicate the BLM should be an active player in the sustained supply of timber.

Timber sale receipts provide revenues to the Treasury and provide employment in this area. Of the fifteen homes on my street, three families are directly employed in the timber industry; one family is headed by a federal employee; four families receive federal social security; two families work for school districts who receive federal timber sale receipts; two families work for county government agencies that receive federal funds; and, three families are employed in other private jobs. All my neighbors are consumers of commodities your district produces. Please consider the biologic benefits (species diversity and fuel management) and economic benefits (receipts to help offset BLM expenses, employment, and supply of wood products) of timber management when adopting your final management plan.

RESPONSE 302

Through the environmental assessment (E.A.) process the BLM is required to consider biological and human elements of the environment before any discretionary action occurs. The Redding Resource Area will not stop timber harvest but we will continue to harvest in such a manner that is not detrimental to the other resources that we are committed to manage.

Although BLM timber sales contribute to the local economy through employment, the timber receipts are distributed to the U.S. General Fund (20%); U.S. Bureau of Reclamation (76%); and State (4%). No BLM timber receipts are distributed to the counties except in western Oregon.

COMMENT 303

We suggest a more complete analysis of the potential for creating old growth forest habitat connectivity, especially where BLM parcels "fill in" checkerboard ownership patterns with U.S. National Forest.

RESPONSE 303

The general philosophy followed in the development of the RMP alternatives was that the BLM can best manage public land that is not fragmented. Therefore, it has been our goal to consolidate land and resources into larger blocks (under BLM or other agency administration) that could be managed for the protection of species, recreation, renewable resources, etc. in a manner that is more beneficial to the resource and also more economical. An exception to this philosophy is the retention of specific isolated parcels that contain special status species or fragile resources that we felt could be best managed by the BLM or a cooperator in conservation.

COMMENT 304

There should be mention of old-growth dependent plant and fungi species along with the wildlife consideration.

RESPONSE 304

The definition of an old-growth forest, as provided in our glossary, includes the trees as well as the endemic species which inhabit the ecological setting. This would include the plant and fungi species usually associated with an old growth ecosystem.

COMMENT 305

Harvest of minor products should only happen after criteria and permitting processes have been established.

RESPONSE 305

The RMP is the planning step that determines land use allocations. Criteria and processes for the sale of minor forest products are established by activity plans and BLM policy respectively.

COMMENT 306

Need a definition of patch out, preferably by limiting size to 2 acres.

RESPONSE 306

Patch cuts designed to improve wildlife habitat would not normally exceed 3 acres in size. This has been incorporated into the Final RMP.

COMMENT 307

Salvage should be limited to totally dead trees only where erosion hazards are not increased by doing the salvaging.

RESPONSE 307

For biological, reforestation and economic reasons an effective timber salvage operation must often remove trees that are dead, dying or expected to die within a reasonably short period. This is often required to slow or stop the spread of the agent causing the mortality, avoid destroying planted or natural seedlings during subsequent logging entries or to make the salvage operation economically feasible by having one entry instead of several. Erosion reduction measures are incorporated into all timber harvest actions.

COMMENT 308

SYU-15 is outdated and contains inadequate information on which to base management decisions. The document's section on Forest and Woodland management is problematic for several other reasons. Since the document clearly contemplates changing the intensity of "management", the EIS must detail the proposed changes and discuss the specific impacts they will cause.

RESPONSE 308

The intensity with which a parcel would be managed would be determined by the Resource Condition Objectives as outlined in the RMP and the site specific Environmental Assessment (E.A.) which would be required prior to any forest management action. The E.A. would identify special status species, soil conditions, cultural, visual or recreational concerns that may limit the intensity of management beyond the level suggested in the RMP.

The impact topics discussed in the RMP were selected because the BLM management of those resources were considered significant on a regional (within the Resource Area) basis. The impacts of forest management, both economic and environmental, were considered to be regionally insignificant. Forest management impacts and mitigation measures to be

applied will be determined on a site specific basis through the E.A. process.

The Reasonably Foreseeable Development of Forest Management on Pages 4-4 through 4-6 of the Draft outlined certain scenarios that were used to help determine the role of forest management, in all alternatives, as an impacting agent.

COMMENT 309

Apparently BLM is unable at this time to determine an allowable (economically and ecologically sustainable) harvest level. Until such a determination is made, all logging should be suspended.

RESPONSE 309

Determining an allowable cut in the RMP would not be practical for several reasons. As the RMP is implemented there will be numerous exchanges, acquisitions, and disposal actions all of which will create a fluctuation in the available commercial forest acreage, site classes and therefore annual growth which would be expected on the public land.

As an interim measure the Redding Resource Area will have a conservative allowable harvest of three million board feet (3MMBF) per year (which is significantly below the growth rates) until the public land acreages stabilize, inventories are completed and an accurate allowable harvest can be determined. There is not a need to completely suspend harvest.

COMMENT 310

The term "improve supply of forest products" is vague and unhelpful. It is unclear whether this term means purchasing additional lands for timber harvesting or using some (unspecified) method to increase timber regeneration on existing lands or simply increasing the yield by more intensive logging practices.

RESPONSE 310

Yes, this term is vague. The document has been changed to read "maintain or improve the long-term sustained yield of forest products from the available commercial forest land". For the sake of brevity the text on the maps will not be changed.

COMMENT 311

It does not state the reasonably foreseeable impacts of maintaining a sustained yield harvest from the available commercial forest land. . . and does not explain why the forestry plan is not conditioned on the harvest not being inconsistent with other resource values.

RESPONSE 311

Sustained Yield Unit-15 Environmental Assessment (SYU-15) states the reasonably foreseeable impacts of maintaining a sustained yield harvest, provides mitigation measures and outlines acceptable management practices. SYU-15 has been incorporated into the RMP by reference and is available for review at our office.

In all cases the harvest of forest products is permitted with the condition that it is not inconsistent with the management of special status species, certain visual resources classifications and cultural resources eligible for inclusion in the National Register of Historic Places. Also, all harvests are conducted under the principles of "multiple use" and "sustained yield" as directed by the Federal Land Policy and Management Act (FLPMA). In addition to the above constraints the harvest of forest products must be consistent (or not inconsistent) with the other stated objectives for the management area.

COMMENT 312

We oppose all sales of raw logs harvested in our National Forests to foreign nations. We urge a realistic evaluation of the domestic demand for forest products in the current economic climate.

RESPONSE 312

On August 20, 1990 President Bush signed into law the "Forest Resources Conservation and Shortage Relief Act of 1990". The Act prohibits the export of unprocessed Federal timber and the direct or indirect substitution of Federal timber for exported private timber.

The evaluation of domestic demand for forest products is outside the scope and intent of this plan.

COMMENT 313

The RMP/EIS states that there will be exceptions to SYU-15 when the area is managed for the enhancement of other resources. Virtually no information on how the areas will be managed differently is presented, and therefore there is no possibility that the reader can understand the likely impact of forestry practices on these areas. Similarly, while the document laudably claims that forest management activities will not be allowed to detract from the outstandingly remarkable values of Wild and Scenic Rivers, it does not discuss what this will mean in practice. The programmatic EIS on forest management practices should specifically include the methods which will be used to protect these areas.

The lack of information is made more troubling by the implication that logging activities in Owl Habitat Areas

("OHAs") will be allowed if they "enhance" the habitat of the northern spotted owl." (See Pages 3-3, 3-13). All of the extant scientific evidence demonstrates that logging in old growth forests is detrimental to Northern Spotted Owl habitat, including the publication "A Conservation Strategy for the Northern Spotted Owl" which the document cites. In order to protect this dwindling habitat, the plan must flatly prohibit any logging in OHAs. This is especially true since the entire timber harvest in the Resource Area is "insignificant". (Page 3-4) If so, the timber harvest from OHAs must be infinitesimal, and clearly would not warrant putting this threatened species at further risk.

RESPONSE 313

No attempt has been nor will be made to determine all of the possible type of actions or conditions under which forest management would occur in the above situations. The spectrum of outstandingly remarkable values for streams in the National Wild and Scenic River System is wide and not necessarily static and the science of wildlife biology and habitat management is constantly being refined. Examples could include the following:

a. Removal of trees determined to be a danger to the public near recreational areas.

b. Removal of blow-down or trees otherwise damaged by storms, fire or disease in an area that was being managed primarily for visual or recreational resources.

c. Removal of certain size classes of trees (either commercial or non-commercial) that would encourage the development of habitats favorable for special status species such as spotted owls.

d. Planting trees for future habitat areas.

Please note that forest management does not necessarily mean timber harvest.

COMMENT 314

As to Forest and Woodland Management, it is insufficient to simply rely on the Timber Management Environmental Assessment for Sustained Yield Unit 15, which was drafted in 1981. In order to make informed decisions about the impact of logging on old-growth dependent species, on watershed and riparian habitat, and water quality, and in order to otherwise ensure that logging practices do no adversely effect the environment, more recent information is needed. This should include a complete inventory of old-growth forest throughout the Resource Area, an inventory of woodlands and their condition, and adoption of a new spotted owl management plan. Moreover, since 1981, significant scientific information has been developed which shows the damage logging causes to a variety of resources. For all these reasons, in order to comply with NEPA, a complete programmatic EIS for the Timber Program must be done for the entire RA.

RESPONSE 314

The RMP is an EIS and has considered the reasonably anticipated impacts on seven critical resources by a number of impacting agents, including forest management. (See Chapter 4 - Environmental Consequences). Forest and Woodland Management was dropped from the list of resources that were considered for further impact analysis because it was determined to be insignificant on a regional/planning area basis.

An additional programmatic EIS to cover forest management activities is not needed to be in compliance with NEPA. Sustained Yield Unit-15 (SYU-15) Environmental Assessment adequately identifies the alternatives, allowable management practices, mitigations, impacts and decisions necessary to determine the impacts on the environment from forest management activities. These portions of SYU-15 have been included into the RMP through reference. Since SYU-15 was written the northern spotted owl has been listed as a threatened species and several streams have been included or proposed for inclusion in the National Wild and Scenic River System within the Redding Resource Area. The management of these resources as it relates to forest management activities has been covered in this RMP. A copy of SYU-15 is available for inspection at the Redding Resource Area office.

A spotted owl management plan will not be written for the entire Redding Resource Area. If a portion or portions of the Resource Area are determined to be critical owl habitat then each area may have a management plan designed and written specifically for that area. Owls will be managed in conformance with Federal and State guidance that is still being drafted as of this writing.

COMMENT 320

Page 2-3 Recreation - I expressed my concerns regarding the "Industrial Park" created in the Bucktail day use area by BLM and Coffee Creek Sand and Gravel Co., at the Weaverville public meeting on May 22, 1991. (Refer to Page 53 of TRRAMP).

RESPONSE 320

It is the BLM's position that the manufacture of concrete and mining of sand and gravel on this particular pre-1955 mining claim is lawful. It is doubtful that the writers of the 1872 Mining Law ever envisioned the type

of conflict that has developed at Bucktail Hole. However, until the law is changed, the BLM must act within the provisions of that law.

The Trinity River Recreation Area Management Plan (TTRAMP) was written prior to the submission of the Plan of Operation by Coffee Creek Trinity Sand and Gravel, but not before the claim was filed. A mining claim, properly filed, gives its holder certain property rights to public land. The BLM cannot arbitrarily alter those rights, even if the operation conflicts with other multiple-use programs.

The batch plant and attendant facilities are located on part of the access road, originally identified in the TTRAMP, for the day use area. However, the TTRAMP is only intended to be a conceptual plan. The project plan, which includes a detailed project layout, includes the road built by Coffee Creek Trinity Sand and Gravel for access. Furthermore, the differences between the TTRAMP concept and the project plan are minor and none of our development options have been altered by the mining operation. The road built by Coffee Creek Trinity can be used for access to the day use area, upon termination of the mining operations.

We should point out, the project plan was completed before the BLM was aware of the plan for the gravel operation. We also recognize that while in operation, the plant does interfere with the recreational use of this area, but the BLM has done all it can to mitigate this interference.

To our knowledge, all current uses on this property by Coffee Creek Trinity Sand and Gravel are legal. This includes the placement of trailers on the property. The BLM has monitored these operations for compliance with our rules and regulations. Using a decibel meter, readings were taken on July 27, 1988 to gauge the sound levels coming from the operation. These readings were taken from a site adjacent to the residences at Bucktail Hole closest to the batch plant. The results from this test indicate the operation is no louder than the normal river sounds, although clearly audible.

The BLM will continue to monitor the situation. However, as long as Coffee Cree Trinity Sand and Gravel continues to operate in a lawful manner, we cannot terminate the operations.

COMMENT 322

Page 2-8 Sedimentation

The Bucktail bridge was constructed at an improper angle in relation to the flow of the river. During moderate high water in 1986 (about 6,000 CFS), the improved day use area adjacent to the bridge on the East bank was destroyed and the spoils deposited in Bucktail Hole. This bank must be stabilized or the river flow deflected to prevent the balance of the area from being eroded and deposited in Bucktail Hole. During the 1974 flood, flows in excess of 13,000 CFS and pre-dam flows of 38,000 CFS in 1955, had no adverse affect on this area. The Bucktail Hold parking lot created by BLM is being used by Coffee Creek Sand and Gravel Company for storage of loam and is not available for public use. This area is in the flood [plain]and part of the overflow bypass which parallels the ledge on the East side of the batch plant.

RESPONSE 322

This concern is beyond the scope of the RMP/EIS process.

COMMENT 323

The Proposed Action, "RESOURCE USE WITH NATURAL VALUES CONSIDERATION" for the Trinity Management Area prescribes to "maintain" the visual quality along the river corridor. The encroachment of mature alder and willow is an unnatural visual phenomenon resulting from controlled releases at Trinity and Lewiston Dams. This has resulted in a loss of visual diversity within the river corridor. In addition, maintaining the existing visual quality along the river may conflict with restoration of the Trinity River fisheries. The alternative should propose vegetative management along the river to provide important visual diversity and allow for fishery restoration activities.

RESPONSE 323

While the vegetative regime along the banks of the Trinity River may not resemble the vegetative regime of pre-dam times, it is the result of natural processes and arguably provides improved fishery habitat by shading the river, etc. The existing vegetative regime was the basis for BLM's Scenic Quality inventories and will continue to be the basis for Visual Resource Management evaluations.

COMMENT 324

The Proposed Action alternative prescribes for continued management under the Trinity River Recreation Management Plan. This management plan, however, if intended to be the Wild and Scenic River Management Plan, does not adequately address fisheries management in the Trinity River. Therefore, the proposed management action should include developing a "Wild

and Scenic River Plan" which addresses fisheries as an "Outstandingly Remarkable Value" of the Trinity River.

RESPONSE 324

The Management Guidance and Decisions Common to All Alternatives, Wild and Scenic Rivers section of the Final RMP has been expanded to include the following: "The Trinity and lower Klamath Rivers are existing components of the National Wild and Scenic Rivers System (NWSRS). Specific comprehensive river management plans will be written for them, incorporating the decisions made in this RMP and existing resource specific management plans."

Fisheries management in the Trinity River is currently addressed by the Trinity River Basin Fish and Wildlife Restoration Act, which authorized the expenditure of $57 million over a ten year period to increase anadromous fisheries. The BLM is an active participant in the Trinity River Task Force and its Technical Coordinating Committee, which is implementing this Act of Congress. The stated resource objective # 3 of the preferred alternative is changed to state: "Protect and enhance the anadromous fisheries of the Trinity River." The following management action is added: "I. Actively participate in the Trinity River Task Force for the purpose of implementing the Trinity River Basin Fish and Wildlife Restoration Act."

COMMENT 340

The large tracts of land which the Bureau of Land Management administers in the Redding area have been valuable community assets for many years. They provide green space; cover for wild animals including deer, quail, turkeys, and coyotes; and recreation in the form of hiking, biking, equestrians and motorcycle trail riding. Recently, however, public access to these lands has been increasingly restricted by private residential development on their periphery. It seems that these lands will soon be available only to those favored few who own the private property which borders them.

Esthetics and recreation are not the only values at stake here. Access is or may be needed for fire protection, searches for lost pets or persons (children or old persons, for example) and law enforcement. Thus, the public safety is very much involved.

Many of us who have purchased property near BLM land were told, as conditions of purchase of our properties, that such land would "always be available". But, as development of bordering tracts continues, trail accesses and egresses are rapidly disappearing. In the Middletown Park Subdivision off of Swasey Drive, for example, developers Boyd and Alan Wilson (whose grading practices recently led to a citation by the California Department of Fish and Game for damaging salmon spawning streams) will not only seal off the public land with their lots, but have, in the interim, erected bulldozed berms and brush pile barricades to close trail access to Muletown Ridge and the lands east of it.

On the west side of the ridge a cable gate with a "No Trespassing" sign would deny those emerging from the public lands passage to Muletown Road. Such denial of egress will also cause problems because those who enter the public land must eventually exit from it. Unless egress is planned and provided they will follow the trails and emerge into the backyards of private landholders.

These problems will only become more severe as tracts now under development or soon to be developed become private homesites. The new homeowners cannot be expected to take kindly to an uninvited party of hikers exiting the public lands through their private patios or gardens.

Trespass problems can be averted and the public safety and recreation needs satisfied by constructing adequate designated trailheads to provide access to and egress from the public lands. Well designated trailheads would protect adjacent landowners from the nuisances of noise and crowds. They need not absorb significant areas of developed property and will surely enhance the value of the lands being developed. And they would preserve the availability of the public land for all of us.

The land under consideration is BLM land, therefore it should be administered for the benefit of the public, not for just a few developers and private individuals who happen to own property on its periphery. It is appropriate that the Bureau take the initiative in assuring this. Wherever possible, access should be preserved by providing adequate trailheads. Developers operating on the periphery of BLM lands should be required to include such trailhead facilities in the planning and layout of their tracts, to construct them, and to dedicate them to the public.

RESPONSE 340

Provision of trailheads on private lands adjoining public lands as a condition of development for those private lands might be desirable under certain circumstances, however, the use and disposition of private lands is beyond the scope of the plan. Such requirements on private land developers would fall under the jurisdiction

of the county or a municipality, rather than the Federal government.

COMMENT 341

Ridgetop BLM land near Redding - This is contained within BLM land located east of Swasey Drive and Lower Springs Road, south of Eureka Way and north of Placer Road. This land currently offers recreation for horseback and bicycle riders, hikers, and joggers; they currently can travel freely along trails to a ridgetop that offers excellent views of the Redding area and surrounding mountains from several largely unspoiled vantage points. This north-South ridge west of Redding within this BLM landholding has outstanding scenic and recreational value. There is simply no other place where a citizen of Redding can, within an hour or two, hike, bike, or walk to such striking views. I would not object if some BLM land within this area were sold for development or traded for other land as long as the jeep trail that follows this ridge and some of its tributary trails were preserved for non-motorized recreation. If this land is developed for the common good, it has the potential to become, as Redding grows, a great asset to the area. I cannot say whether this land (especially the ridgetop trails) would be best managed by the BLM or by the City of Redding or by Shasta County. I can say that it would be tragic if the ridgetop trail, which is already threatened by development, were lost to it.

RESPONSE 341

The Sugarloaf parcel west of Redding is surrounded by private development and through the Visual Resource Inventory performed prior to the 1983 Redding Land Use Plan this ridge area was found to be of marginal scenic quality and low viewer sensitivity. It has not been protected from conversion to development in the past and some mine development has occurred. There is little evidence that the general public is aware of or uses this area, even though it does provide an excellent viewpoint for the north end of the Sacramento Valley. The comment is the first mention of the area in any of the RMP public participation portions of the plan. The area could be acquired by the County or City for protection under their authorities under the proposed action or a right-of-way could be established by local government prior to disposal.

COMMENT 342

YOLLA BOLLY MANAGEMENT AREA:

[Commentor] does not support the proposed action for the Yolla Bolly management area. We support the Enhancement of Natural and Cultural Values Alternative which meets [commentor's] objectives for fish and wildlife resources. We are concerned that there is no specific commitment for prescribed burning in brushlands. Prescription burns could enhance fire management objectives as well as improve wildlife habitat.

RESPONSE 342

See comment # 192 for the first part of the comment dealing with the selected alternative. As for prescribed burning on these lands there is nothing in the RMP that would limit prescribed burning. This activity would be discussed in activity plans for any area. Activity plans consist of habitat management plans, coordinated resource management plans, etc. These plans furnish guidelines and specific actions for enhancement and protection various resources including prescribed burning as needed.

COMMENT 343

There are significant areas designated for "disposal" that are within the watersheds of Big Chico Creek and Butte Creek. Proper management of entire watersheds is critical to the management of the creeks themselves. If an appropriate agency is not identified for sale or transfer of these lands, then BLM should enter into a joint management agreement with a local agency. Under no condition should these properties be allowed to come out of public ownership.

RESPONSE 343

The public lands in Big Chico Creek, which are outside the interim Wild and Scenic River corridor, are available to the City of Chico, Butte County, or other qualified organizations through the Recreation and Public Purposes (R&PP) Act for appropriate public uses. Should they not be able to acquire the land through the R&PP Act, then these lands will be made available for disposal by exchange due to BLM's limited presence in the area. As to Butte Creek, only a very small percentage of the watershed is available for exchange under the proposed actions whereas substantial acreage has been identified for acquisition.

COMMENT 345

Our preference would be that BLM work with private land owners in a cooperative public-private partnership arrangement to accomplish the goals of the agency without additional land acquisition by the federal government.

RESPONSE 345

As noted on Page 3-36 of the Draft RMP, BLM intends to pursue a mixture of cooperative management actions as well as purchase of available unimproved lands, i.e., willing sellers, to accomplish the goals stated on Page 3-34 of the Draft RMP.

COMMENT 346

While the 2,620 AUM's of grazing in Siskiyou County may not be a high percentage of the total grazing resource of the county, it may well be essential to certain livestock operations and/or local service entities.

RESPONSE 346

Transfers of public land to the private sector via exchange will be coordinated with the appropriate local agency to ensure compatibility with adjoining uses. In most cases former public land will be zoned in conformance with neighboring lands. Traditional and current uses of the surrounding landscape will continue even with the transfer of the scattered public interests. Therefore, the culture, customs, and economic vitality of the private sector will remain constant.

COMMENT 347

Any land exchanges should include not only review of comparable land values, but must also address possible increases in administration and management costs of the exchanged land. For example, exchange of current forest land that may have relatively low administration and management costs for wetlands, that may have appreciably higher administration and management costs should not be considered unless new sources of funds for management are involved and guaranteed before exchange.

RESPONSE 347

It is true that highly visible and accessible public lands will demand increased levels of management. It is wrong, however, to assume that widespread public lands are relatively inexpensive to administer. By focusing human and fiscal resources, BLM can increase the amount of accessible and useful public lands and protect regionally significant biological values. As discussed in the Rationale for the Proposed Action on Page 3-40 of the Draft RMP, for example, BLM is interested in native wetlands in terms of biological productivity and long-term costs, i.e. they are cheaper to maintain than human-made environments.

COMMENT 348

I'd like to comment on the issue of public access in McConaughy Gulch and Noyes Valley which is mentioned on Page 2-4 of the report (Chapter 2 - Affected Environment).

Public access is a double edged sword: it promotes recreation, which is good, but it can also be detrimental to wildlife. We have blocked (with BLM permission) the private roads leading into our property from McConaughy, partly to reduce trespassing, particularly during hunting season, but also to prevent poaching during the off-season. During the early 1980's, after this road was improved, there was a great deal of traffic and poaching in this area, and we feel it was disastrous for the wintering deer herd there, which has never really recovered.

For similar reasons, we would like to propose that the BLM access road in Noyes Valley be gated. The gate could be open during the hunting seasons and then locked during the off-season. This would eliminate poaching during the winter, help us with our trespassing problem, yet still allow hunter access.

RESPONSE 348

Although BLM is not necessarily opposed to this action, it would not be considered in the RMP. Activity plans are written for specific resources such as range, wildlife, recreation, etc., within the guidelines of the RMP. Specific access requirements or closures are considered at that time. In the case of Scott Valley, public lands have been identified for disposal via exchange. If public lands are exchanged, access/trespass problems are moot. BLM can work with individual landowners to resolve interim problems as well, pending disposal of public lands.

COMMENT 349

The commentor is concerned about BLM's management problems caused by trespasses and trashing of public lands especially around the Redding Metropolitan Area where there are many BLM parcels. We feel that these are appropriate parcels for BLM to work towards consolidation through land exchange. If BLM were to work with the City of Redding and Shasta County in such an effort, the resulting consolidated land could be transferred to these local governing bodies as a regional park; something that is greatly needed and could benefit all of the local citizens. The commentor encourages the BLM to approach the City and County about such a possibility.

RESPONSE 349

The public lands around the Redding Metropolitan Area have been identified to be disposed primarily through exchanges. However, we are giving the local government agencies a period of two years in which to apply for recreation and public purposes facilities on those lands. If the City or County wishes to develop a regional park on public land, the BLM will work with them.

COMMENT 350

The commentor feels that the BLM has not demonstrated that there is significant trespass or trashing of public lands away from populated areas, and our

own field observations confirm that for the most part this is the case. Because of the biodiversity question and because the least expensive way to manage lands is by leaving them to function under natural systems, the commentor opposes the large scale of land transfer to private ownership, that is proposed in the plan. We do support the efforts by BLM to protect special areas through land acquisitions; however, the BLM should make these acquisitions first through direct purchase using such means as LWC funds and the assistance of such organizations as The Nature Conservancy or The Trust for Public Lands. Land exchanges should only be made after full consideration of the biodiversity and other natural resource values have been made. The sale of public lands for acquisition purposes is never appropriate, because the proceeds from such sales are returned to the general fund and are not available for purchasing additional public lands. The commentor opposes the general sale of public lands. Isolated inaccessible parcels should remain in public ownership to protect a full compliment of biodiversity.

RESPONSE 350

The BLM has identified several areas in which public ownership of the land is needed to protect or enhance public values. In order to acquire these properties as they become available, a large funding source will need to be established. The Redding Resource Area has authorization to use Land and Water Conservation Funds (LWCF) for only one area - the Sacramento River. Funding for the Sacramento River by LWCF has not been adequate to acquire all the lands that have been offered. Exchanges with The Trust for Public Lands and other non-profit organizations have been used to secure those properties in public ownership. All land exchanges comply with the National Environmental Policy Act and other appropriate laws. Sales will not be used for the reasons stated in the comment. Generally, BLM prefers to conduct land exchanges in consideration of local property tax revenues. Counties especially are opposed to direct purchases of private lands.

COMMENT 351

All parcels that are outside population centers and that are greater than 1/2 section in size should be retained by BLM.

RESPONSE 351

A parcel's size was not used in the determination of whether it should be retained in public ownership. We have proposed to retain in public ownership many parcels less than 1/2 section in size outside of population centers to protect public values, such as threatened or endangered species, and wetlands. If a parcel larger than 1/2 section does not have public values associated with it, there would be no point in retaining it in public ownership.

COMMENT 352

Use of restrictions and conservation easements are unacceptable to justify sale of properties to private parties, because enforcement is impossible.

RESPONSE 352

Use of restriction and conservation easements will be used only when required by law, or when use of them becomes the only way to complete the project. If the protection of the value is doubtful, the disposal action may be abandoned. It is our intent to retain little or no management responsibilities after the issuance of a patent.

COMMENT 353

No sale should be made for any parcel containing a permanent water course or a wetland that is either permanent or seasonal.

RESPONSE 353

Water on the parcel is only one of the many factors that was used in determining whether a parcel of land should be retained in public ownership. Most of the areas being retained and identified for acquisition contain some water course on them.

COMMENT 354

I am sure there is a limited amount of land available for exchange or sale each year and a long list of lands in areas proposed for blocking up by acquisition. I urge real and significant public involvement in determining priorities for acquisition, in spite of the complexities and nature of the exchange process. I have heard and agree the River areas should have a high or highest priority. I also recommend the Clear Creek Area below Whiskeytown Dam to be included in the plan for acquisition and for a high acquisition priority but recommend a limit to the width of the acquired area of a maximum one mile as needed to protect the riparian and wildlife values.

RESPONSE 354

BLM receives funding from various sources in support of our land exchange program. These funds are designated for certain project areas; therefore, the availability of funds is one of the elements in establishing land exchange priorities. Currently, land exchange acquisition along rivers are our highest exchange priority.

COMMENT 355

The jeep trails northeast of the Perry Riffle access road should be closed to motorized access. The area east of the Sacramento River from Paynes Creek/Perry Riffle north to Inks Creek should be managed for semi-[primi-

tive] non-motorized recreation. Areas acquired in the Wild and Scenic corridor along Iron Canyon should also be managed for non-motorized uses to meet the requirements of Wild classification. However, motor boat use on this river segment should be allowed as a pre-existing, non-conforming use.

RESPONSE 355

The jeep trails northeast of the Perry Riffle access road are legally closed and signed as such, however, illegal vehicle use does occur. The area north of the Perry Riffle Road is managed for semi-primitive motorized use rather than semi-primitive, non-motorized use because of the influence of the Sacramento River motorboat use. Power boats are often audible and visible from many parts of the public land in this area. It would not be realistic to prescribe a semi-primitive non-motorized setting as long as power boat use can intrude the setting so pervasively. Regarding management of the Iron Canyon segment of the Sacramento River. If this area is acquired, the extant setting would be preserved to the extent possible. If this were determined to be non-motorized, then a consistent prescription would be applied.

COMMENT 356

The County appreciates past BLM assistance in acquiring these lands for airport purposes. It would be likewise appreciated if the plan would likewise provide for possible R&PP, airport grant or exchange of BLM administered lands in the East 1/2 of Section 5, T. 33 N., R. 9 W., M.D.M. and the NE1/4 of Section 8, T. 33N., R. 9W.,, M.D.M., for possible long-term replacement of the Weaverville airport and maintenance of required aviation easements for safety areas.

Potential purchase or trade of 480 acres in Section 34, T. 32 N., R. 11W., M.D.B. & M. in Hayfork Valley along Barker Creek Road by the County of Trinity should be noted in the Plan. The County may be interested in this section as a future landfill site.

RESPONSE 356

The 360 acres and 480 acres of public lands addressed by this comment are both portions of larger parcels of public lands that have been selected for a land exchange to support an Off-Highway Vehicle (OHV) project. Since it is unknown when either of these parcels would be needed by Trinity County, it has been determined that a greater public benefit would exist to utilize these public lands to support an OHV project.

COMMENT 357

When trading or exchanging public lands as noted, BLM should provide for retention of easements for pedestrian and biking use such as along the "Rush Creek" historic mine ditch as well as consult with local agencies for rights-of-way for future roads prior to committing said lands to exchange.

Obtainment of such easements and/or rights-of-ways would be of particular benefit to the Community of Weaverville where a substantial amount of acreage is designated for exchange.

RESPONSE 357

It is the cities and counties responsibility to apply for rights-of-ways for trails, bikeways, and roads over lands identified for disposal. This Final RMP could be used in conjunction with local planning documents to identify and determine what rights-of-ways they should apply for. BLM is willing to work with local agencies to safeguard these values prior to disposal of federal title.

COMMENT 358

As is feasible, land exchanges should be for parcels containing in kind biological values.

RESPONSE 358

It is BLM's policy when proposing land exchanges to exchange for lands with higher value resources. However these exchanges are not limited to any specific resource. All land exchanges are analyzed on a site specific basis and a copy of the exchange proposal and analysis is routed through the California State Clearing House. The proposed action in summary, identifies the values BLM has determined to retain, acquire and manage.

COMMENT 359

Does not want any more acquisitions, wants disposal of public land in isolated parcels. Wants no loss of tax base.

RESPONSE 359

BLM is committed to retaining a presence in the Redding Resource Area. With implementation of the RMP the public lands will be repositioned into more useful and enjoyable areas. These areas will be managed for the objectives stated in the RMP. To achieve this, lands will have to be acquired either through purchase or exchange. Exchanges will be the predominant form of acquisition due to the lack of funding for purchases and in deference to county tax revenues.

With exchanges, public land will be transferred to private ownership and private land to public ownership. Some of these lands will be isolated with no access and others will be fully accessible. The laws which govern exchanges say that with any exchange, the public values

on the lands offered by a private party will have to be equal or greater than those on the public lands that are selected.

COMMENT 360

I believe Butte Creek is used mostly by non-miners, and day-users during the summer (Page 4-14).

RESPONSE 360

The comment refers to Page 4-14 in the RMP, however, it may have been intended for a description of use in the Butte Creek area which appears on Page 2-14. There is no contradiction between the commentor's observation and the description which appears on Page 2-14. There are more day-use visits and visits for recreational purposes other than mineral collecting, however, in terms of total time spent on site (mineral collector's commonly camp for several weeks at a time), more total hours of use may be attributable to persons visiting the area to collect minerals during the summer months.

COMMENT 363

As property owners on Old Stagecoach Road, Shasta, California, we are definitely in favor of the alternate plan for "The Enhancement of Natural and Cultural Values".

We left the Bay Area some eight years ago to escape to an area that maintained the beauty of the woods and the wildlife that still is so much a part of this community. The open space of this area is without a doubt what makes it so appealing.

There is another great concern for us with the risk of wildfire so always a problem and fear in this area. If public buildings or recreation areas were introduced to this land, it would more than double the risk for wildfires.

Please help us to maintain this area as a natural and cultural part of the ever growing Shasta County.

RESPONSE 363

The land ownership pattern, fuel type, continuity, and arrangement, prevailing weather patterns, and present development in the general area all contribute to the risk of wildfire. The present risk is extremely high.

The public land addressed in the comment is identified for disposal in the proposed action of the RMP. If this occurs, more development will likely occur, thereby reducing public access and reducing risk of fire through vegetative modification, increased emergency vehicle access and building requirements required by Shasta County. The mixture of densely vegetated unoccupied land and rural residential developments has led to explosive and costly fires in human and property terms. Unless open space areas are carefully planned to conform with community growth, wildfire tragedy is a certainty. BLM has proposed a major repositioning of public land near Redding to help avoid this tragedy.

COMMENT 365

In lieu of direct acquisition of the Shasta Valley Wetlands and possibly higher administration costs of certain lands you have identified, the Coordinated Resource Management Plan (CRMP) and Memorandum of Understanding Concepts be utilized more fully to achieve the same goals.

I feel that private landowners and managers and the general public would be more supportive of this concept than direct BLM acquisition of private lands. Personally, I have been advocating this concept for the past some fifteen years in the Horseshoe Ranch area, but it has not been a priority of the governmental agencies to date. It has been quite frustrating to want to manage and coordinate grazing to promote more deer winter range and habitat on both public and private lands and be unable to obtain suggestions from California Fish and Game and BLM as to how to achieve this goal.

To my knowledge the private landowners and residents in particularly the Upper Klamath area are supportive of wildlife habitat enhancement. However, most feel that livestock grazing can be a compatible and beneficial use. I would hope that a plan could be developed to include grazing until such time that proven site specific data shows that it is detrimental to area goals..

I feel that many changes could be beneficially instituted on both public and private property to enhance wildlife and other uses identified in the RMP draft. However, this needs planning, coordination and financial commitment by all parties concerned.

In closing of this section, I feel that there is a great opportunity for private and public managers to work together to achieve the goals of the RMP draft without BLM going to the expense of acquiring more land and the added financial burden of management of acquired lands.

RESPONSE 365

Land acquisition and exchanges are used in some instances to consolidate public land for administrative convenience and in some cases to protect a resource from development. CRMP's are an excellent way to reduce land purchase and exchanges and are a tool that can be used by several participating parties to improve

resources on public and private lands. There is nothing in this RMP to restrict or prohibit this process.

COMMENT 366

Would like to see BLM put emphasis on high priority areas and dispose of the rest of public land.

RESPONSE 366

The main purpose of the Redding Resource Management Plan is to focus human and fiscal resources in those areas which contain the highest public resource values. The proposed action of this document recommends major consolidation efforts in areas like the Interlakes Special Recreation Management Area, the Sacramento River near Bend, the Trinity River and several other areas of high public interest. Conversely, a sizeable amount widely dispersed parcels of public land with limited resource values and public opportunities are identified for disposal, via exchange. Moreover, several parcels of public land are recommended for transfer to local, state and federal agencies in recognition of administrative efficiency and to provide enhanced public service.

COMMENT 367

The Bureau should acquire a corridor 1 mile wide on each side of Clear Creek.

RESPONSE 367

Acquiring a corridor of 1 mile wide on either side of Clear Creek would not be an acceptable proposal. This would include residential areas, and some highly industrialized areas and commercial properties.

COMMENT 368

Public lands in the Centerville area should be left as open space.

RESPONSE 368

In the greater Centerville area BLM is proposing to retain and acquire large tracts. They will be managed for purposes such as the enhancement of anadromous salmonid habitat or the conservation of cultural resources. They could be considered "open space". No uses will be allowed in the area that would interfere or be contrary to those management objectives.

COMMENT 369

Maintain the existing use of public lands to be traded. Don't allow a change in use between public to private ownership. Use whatever means necessary to keep use the same.

RESPONSE 369

Once public land is patented, use of the land becomes the responsibility of the local governments through zoning and use restrictions. We have no reason to maintain limited management on a parcel to ensure that the use remains the same.

COMMENT 370

Public land north of Placer, East of Swasey Drive to Old Shasta should remain in public domain. Hiking, equestrian, educational and non-descriptive uses should be the only ones permitted.

RESPONSE 370

Hiking, equestrian trails, and educational uses are legitimate uses on public land. However, BLM, along with the National Park Service, U.S. Bureau of Reclamation, and the U.S. Forest Service manage or will manage great expanses of land nearby for these purposes as well as others. The public lands in the area noted have limited potential for recreational development. The protection of the uses on those parcels could be well protected by local governments by direct acquisition by them or by obtaining rights-of-ways across those parcels prior to the BLM disposing of the property.

COMMENT 371

The adopted plan should be financially possible and stated as such in the RMP.

RESPONSE 371

The Draft RMP was developed to ..."provide an array of realistic management options...which can be accomplished under current funding levels" (Page 3-1 of the Draft RMP). In some cases, the ability to achieve the objectives for one area necessitated a less costly alternative elsewhere, e.g. selecting the Administrative Adjustment alternative in the Yolla Bolly Management Area to afford the Enhancement of Natural and Cultural Values alternative in the Sacramento River Management Area.

The Final RMP has added language to ensure that the public understands these conscious trade-offs in developing an achievable Resource Area-wide proposed action. In one instance, i.e. Grass Valley Creek watershed within the Trinity Management Area, BLM has added precautionary language that implementation of the RMP objectives depends on additional human or fiscal resources.

COMMENT 372

Acquisition priorities should be listed in the plan.

Acquisition priority should be given to local needs serving the greatest number of people.

RESPONSE 372

Some of the factors that we will be using in establishing priorities for acquisition are (in no particular order): the

availability of the lands we wish to acquire, the imperilment of the resource objectives for the area, the availability of funding, and the subsequent approval of activity plan(s) for each of the areas. The importance of each of these factors will change from area to area and also over time. Consideration of these factors and others for specific areas cannot be reasonably addressed within the Final RMP. They are more reasonably addressed at the activity level of planning which will follow the approval of the Final Resource Management Plan. i.e after the Record of Decision.

COMMENT 374

Boundary of the Clear Creek area should be made to provide the greatest public accessibility.

RESPONSE 374

The boundaries of the Clear Creek polygon in the proposed action of the Draft RMP used a combination of natural topography and roads. The sole exception to these criteria was use of a one-quarter mile wide corridor along much of the west side of the creek above the Clear Creek Road bridge in conformance with a study corridor for National Wild and Scenic River status.

The Final RMP provides for public access to Clear Creek in a manner similar to the Draft RMP. Clear Creek Road serves as a boundary for the lower segment of the stream. Placer Street crosses the stream and affords access to the lower canyon. Muletown Road parallels the creek and will offer extensive access opportunities.

All lands acquired along Clear Creek would be acquired to improve public access. Vehicle access would be limited under the proposed action. Clear Creek Road is identified as one clearly identifiable part of the boundary that facilitates access.

COMMENT 376

Want increased signing on BLM land.

RESPONSE 376

BLM presently has a sign program for identifying areas that need signing and documenting which signs have been posted and their location. Currently there are BLM signs found in areas experiencing a higher amount of visitor use or where problems and land boundaries were identified and the need for signing became obvious. BLM's recreation areas are presently signed and there are plans to implement various styles of signing in the Gene Chappie/Shasta Off-Highway Vehicle area.

BLM's scattered ownership pattern and difficulty with access, or multiple access sites has posed a problem for signing in the past. Access and signing were anticipated in developing the land-use management alternatives. Through land acquisition and consolidation the sheer volume of access and signing needs will be focused. In the course of developing an integrated resources activity plan, BLM would identify important public interpretive needs and visitor services in order to better manage and identify the various areas.

COMMENT 377

Concerned about enforcement/patrols on Clear Creek - possibly use citizen involvement.

RESPONSE 377

Due to the types and amount of use it receives, the Clear Creek area currently receives a higher amount of patrols and enforcement action by recreation/visitor services and law enforcement staff than many areas of public land within the Redding Resource Area.

Some citizen involvement is currently occurring on a casual basis and through the BLM volunteer program. A more formal program of citizen involvement could certainly assist BLM with its management of public lands in the Clear Creek area as well as other areas. BLM actively encourages direct public involvement in the stewardship of their resources.

COMMENT 378

Recommends closing access in T. 33N., R. 6W., Sections 30 and 31 near Bright Star and Mad Mule mines for purposes of public safety. Open shafts present. Vandalism has occurred and interference with operations has occurred.

Recommend closing road to T. 33N., R 6W., SE corner of Section 30. Recommend closure from Whiskey Creek to subject parcel. Road allows unauthorized access to property allowing vandalism to cabin.

RESPONSE 378

The two comments are normally addressed in an activity plan, however, field examinations to evaluate the situation and identify only need for immediate action will be conducted as soon as possible.

COMMENT 379

OHV impacts should be discussed in more detail by OHV Area in Environmental Consequences and Alternatives on Page 3-59 of the Draft RMP. Paynes Creek, Swasey and Chappie OHV Areas were mentioned.

RESPONSE 379

Off highway vehicle (OHV) related impacts from the Gene Chappie/Shasta OHV Area are described within the Shasta Off-Road Vehicle Area Environmental Assessment available at the Redding Office. Impacts from

other recreational activities have been considered through analysis of the recreational reasonable foreseeable development scenario found within Chapter 4 (Environmental Consequences).

COMMENT 380

More public land along Clear Creek is not needed. I'm concerned BLM will use condemnation to acquire lands along Clear Creek.

BLM should state that BLM will not use condemnation to acquire lands for recreation or wildlife purposes.

RESPONSE 380

Clear Creek could, according to estimates by the California Department of Fish and Game, support up to 6% of the salmon population in the Sacramento River. Along with the other values found along Clear Creek, such as possibilities for non-motorized recreation, cultural values, and sterile quality, it becomes an area of regional significance worthy of public ownership. As to the use of condemnation, BLM does not have the authority to condemn private lands for other than access, except where indicated by the U.S. Congress, e.g., the King Range National Conservation Area. All acquisitions will be for available unimproved land, meaning lands which are willingly offered to the BLM for acquisition and which contain improvements which represent less than 20% of the total value of the land. Word has been added to the Management Common To All Alternatives section in Chapter 3 stating that BLM will not be using condemnation to acquisition land.

COMMENT 381

Rocky area below Saeltzer Dam is important for nude swimming/sunning, historic usage at least for 21 years. BLM should acquire and manage lands for this use.

RESPONSE 381

Nude swimming and sunbathing have been traditional uses on private land in the area below Saeltzer Dam of Clear Creek for a number of years. Presently BLM has no policy prohibiting those activities on public land. However, if the public found it offensive and wished to press the issue, then the policy may change. The Shasta County Sheriff's Department also has authority over this area. It is unknown what their policy is towards nude swimming and sunbathing.

COMMENT 382

Within Clear Creek corridor, existing public lands should be developed for family-type recreation (picnic tables, trails, parking lots). Existing land sufficient for this purpose, more acquisitions are not necessary.

Better access (trails) warranted for Clear Creek area to enhance public usage.

RESPONSE 382

Under the proposed action Clear Creek would be restored to a natural condition. Trails could be identified at the activity plan level. The proposed action for this area does not limit the construction of trails, but does limit trails for motorized vehicles. The proposal to acquire additional lands along Clear Creek is intended to help restore valuable resources that have been decimated by past actions along the Clear Creek corridor.

COMMENT 384

Opposition to Veteran's Hall on Placer Street due to nearby residences.

RESPONSE 384

The proposed Veteran's Hall is a legitimate use of public land under the Recreation and Public Purposes Act of 1926, as amended. The public lands west of Redding and other areas of the Redding Resource Area have been identified as suitable for disposal to local governments for uses like this and other recreation and/or public purposes uses. Local zoning will dictate whether that use is compatible with the surrounding uses.

COMMENT 385

There are not sufficient natural/historic values in the Clear Creek area to warrant the proposed action. Tax money (BLM dollars) should not be spent on this. (We could better spend the dollars elsewhere.)

RESPONSE 385

The resource potential (fishery and wildlife) are very high along the lower reaches of Clear Creek, below McCormick Saeltzer Dam. A proposed fish ladder (Upper Sacramento River Fisheries and Riparian Habitat Management Plan) would open up the upper reaches of Clear Creek to Whiskeytown Dame to salmon and steelhead spawning. Clear Creek is an historical spawning stream and is critical to continued existence of these fish.

COMMENT 386

Horsetown - Saeltzer Dam area needs a native plant inventory.

The Redding Resource Area should have a botanist due to the increased consolidation. Would like someone knowledgeable to talk to about botany of public lands.

RESPONSE 386

The majority of BLM lands are in need of such inventories. The Redding Resource Area has only one qualified employee who has been assigned to handle botanical concerns on a part-time basis. This person, due to other assigned duties, is capable of handling only priority actions dealing mainly with Special Status Plants. The workload in dealing with Redding Resource Area's diverse and unique vegetation and their habitats has steadily increased. A full time Botanist would be beneficial to help manage this resource. California BLM has recognized in their Fish and Wildlife 2000 report of 1990, that one of the most important objectives for the special status plant program for the next decade is to have a botanist (or other qualified person) in each Resource Area so this resource can be effectively managed. Several of these positions have been filled throughout the state since the publication of this report. It is possible that Redding Resource Area will someday be able to devote more time to manage this important and valuable natural resource.

COMMENT 387

Horsetown area is important enough to be kept in public ownership. BLM should investigate a co-op law enforcement agreement with Shasta County to better protect Clear Creek area.

RESPONSE 387

BLM has maintained a cooperative law enforcement agreement with Shasta County Sheriff's Department for several years. The law enforcement rangers communicate problems that may be occurring in the Horsetown area to the deputies and the Sheriff's Department has provided patrols and information to the BLM law enforcement staff. There have also been additional patrols in the area by California Department of Forestry and Fire Protection personnel primarily during the fire season. The BLM visitor services and law enforcement staff concentrate a significant amount of their time in the Clear Creek area to ensure compliance with BLM regulations.

COMMENT 388

Gravel companies are capable of managing streams and enhancing fisheries, therefore, there's no need to acquire more public ownership of lands in the Clear Creek watershed.

RESPONSE 388

A current evaluation of Clear Creek would not indicate that the gravel companies and miners historically have done an adequate job of managing their operations to protect the resources along Clear Creek. The cumulative impact of historic activities has greatly impacted the quality of the fisheries and riparian habitats.

COMMENT 389

Public lands along Clear Creek above Placer Street are most valuable for urban development.

RESPONSE 389

State and County ordinances restrict development in flood plains which should eliminate most urban development along Creeks. Areas above Placer Street may have potential for rural residential development in concert with the Shasta County General Plan.

COMMENT 390

Existing user groups in the Swasey Drive area should not be evicted in favor of new users.

RESPONSE 390

A major reason BLM is preparing this RMP is due to change. Because of development adjoining public land near Swasey Drive, some uses may have to cease. BLM is sensitive to the concerns of user groups and has proposed to provide nearby opportunities, e.g. regional firing range, OHV area, etc. The subject area has been proposed for designation as an Area of Environmental Concern. This designation will require a specific management plan to protect cultural resource values and will address which public uses will be appropriate in the area.

COMMENT 391

Transfer the Swasey drive and Muletown Mountain area to the National Park Service.

RESPONSE 391

Public land adjoining the Whiskeytown Unit of the National Recreation Area in the vicinity of Mule Mountain and Swasey Drive were recommended for transfer to National Park Service under the Administrative Adjustment alternative. The proposed action (Resource Use with Natural Values Consideration alternative) does not suggest transfer of these public lands because the National Park Service prefers to maintain their existing boundaries focusing on the watershed of Whiskeytown Lake.

COMMENT 392

The east side of the Sacramento river below Shasta Dam should connect with Sulphur Creek for a horse trail.

RESPONSE 392

The proposed action of this RMP includes enhancement of non-motorized recreation along the Sacramento River. Specific actions such as how trail construction will be addressed in an activity plan and would consider all resource values. Sulphur Creek falls outside of the

area BLM will be retaining and administering. Nevertheless, it may be suitable as part of an integrated greenway system affording residents tremendous opportunities through private, federal, and local government collaboration. BLM endorses these cooperative ventures.

COMMENT 393

Concerned about off-highway vehicles on Swasey Drive/Lower Springs Road/Victoria Drive area because of fire hazard.

RESPONSE 393

Much of the public land in this area has been identified for transfer or exchange. This and retained public land, e.g. Swasey Drive ACEC, is to be managed for "limited" motorized vehicle use. Motorized vehicles can only be operated on roads or trails shown on the designation map available in the Redding Resource Area office. All vehicles used on public land must conform to State and Federal regulations which require legal spark arresters to be installed. Closures will be implemented when severe conditions create extreme risk of wildfire.

COMMENT 394

Some of the Clear Creek area should be kept non-motorized because of trash dumping.

RESPONSE 394

BLM has actively been involved in the clean-up of tens of thousands of pounds of trash in the Clear Creek area for the past few years, and is aware that that area is particularly susceptible to trash dumping due to its proximity to the Clear Creek Landfill. One solution that has been offered in the proposed action of this Final RMP to help reduce the amount of trash dumped on public lands in the Clear Creek area is to reduce or restrict motorized traffic into the area.

COMMENT 395

There is a need for more non-motorized access to the Sacramento River trail (Redding-Keswick) because the north part of the existing trail is not wheelchair accessible. Individual wants access points to new Sacramento River trail proposal that is available for handicap (wheelchair) use.

RESPONSE 395

The BLM has determined to enhance non-motorized recreation opportunities along a greenway along the Sacramento River between Redding and Shasta Dam. BLM is required by law and policy to ensure appropriate access for disabled Americans. The best time to consider specific developments to meet these special needs is at the activity plan level. BLM will ensure that these needs are fully considered at that time on any public lands or rights-of-ways under our administrative jurisdiction.

COMMENT 396

The railroad bed trail should be for non-motorized use, i.e. walkers, disabled access, etc.

RESPONSE 396

BLM recognizes the significant interest of many groups to maintain or develop uses along the abandoned railroad grade paralleling the Sacramento River. As noted in the response to Comment 395, non-motorized use is the intended focus along the greenway (as well as all public lands east of the river). The appropriate time to consider the layout of facilities to meet the needs of various users is during a subsequent activity level plan(s). BLM will ensure that these uses are fully considered at that time on any public lands or rights-of-ways under our administrative jurisdiction.

COMMENT 397

The 12 miles of railroad bed along Keswick Lake should not be made into a trail, but be left for vehicle access, i.e. fishing, joint use, okay.

RESPONSE 397

As noted in responses to Comments 395 and 396, BLM has determined to emphasize non-motorized uses along the Sacramento River. BLM authorized motorized vehicle use of the railroad grade depends on two actions subsequent to this RMP. BLM must first obtain administrative jurisdiction of the abandoned railroad right-of-way. BLM must also develop an activity plan which would assess a variety of integrated or segregated recreation uses in the area. It is during preparation of the activity plan that BLM will determine if motorized use on the railroad grade is appropriate and what by-pass or parallel routes are needed to accommodate motorized or non-motorized uses.

COMMENT 398

Clear Creek area should be left for mining because of public hazards.

RESPONSE 398

Mining in an area should not be based on how many public hazards are contained in an area but rather on the mineral value within the area. If the area is developed for recreation, the activity plan would outline measures needed to ensure public safety.

COMMENT 399

Prior to exchanges, coordinate the right-of-ways to include any county roads.

RESPONSE 399

Valid existing rights, such as county roads, on public lands will be protected by making the patent subject to those rights or by requiring the patentee to give the holder an easement for those rights.

COMMENT 400

SCOTT VALLEY MANAGEMENT AREA:

We are concerned that the disposal (sale, exchange, transfer) of public lands in critical deer winter range such as southern Scott Valley may reduce long-term values of the area for deer. As the document points out, current county zoning protects deer winter range by requiring large minimum parcels sizes. At full development even large parcels tend to reduce deer habitat values. In addition, the Siskiyou County General Plan (GP) and Zoning Ordinance is not permanent. The GP can be changed three times a year and zoning can be changed at any time. The BLM lands were an integral part of the revised general plan with the deer restriction for long-term protection of this resource. This document needs to disclose changes in Federal ownership in this area could jeopardize deer habitat values.

[Commentor] has acquired conservation easements in Noyes Valley and McConnaughy Gulch. These easements were acquired with the cooperation of a large landowners in the area and are intended to protect deer winter range values. A primary consideration in the acquisition of these easements was the adjacent BLM lands. It was felt that the easements along with public lands would provide long-term protection for deer winter range values. Because of the important winter range values of the area, we recommend that in T. 41N. and T. 42N., R. 7W.and R. 8W., all contiguous parcels or single parcels greater than 640 acres be retained.

RESPONSE 400

Due to public interest and BLM's concern, deer winter range habitat was identified as a significant impact topic. Generally, BLM will be exchanging middle elevation lands for middle to low elevation lands. In some instances of the Proposed Action of the RMP, BLM will increase public ownership in deer winter range habitat. In other instances, BLM will acquire lands within year-round deer herd habitat. In either case, BLM anticipates no adverse impact to deer habitat or populations. In southern Scott Valley, BLM has determined (refer to Rationale for the Proposed Action for Scott Valley Management Area), that the Siskiyou General Plan, regulation by California Department of Fish and Game, existence of conservation easements, and low intensity land uses will all help to protect the condition of the deer winter range habitat during the lifespan of this RMP, i.e. fifteen years.

COMMENT 401

Survey efforts for northern spotted owls have increased significantly since the species was listed. There are numerous "new" locations for owl nests within and adjacent to BLM lands in the Scott Valley area that the document has not considered. Prior to any disposal, these lands should be surveyed for spotted owls. The potential impact of proposals to dispose of Federal land on spotted owl must be considered prior to approval of land transfers.

RESPONSE 401

Chapter 3, the section on Lands and Realty, describes the processes for protecting special status species such as the spotted owl. At the time the draft RMP was being written, this area had not been surveyed. Both BLM surveys and private surveys have discovered several pairs of Northern spotted owls in Scott Valley. These are discussed in Chapter 2, Affected Environment (Scott Valley and in Chapter 4, Environmental Consequences (northern spotted owl impact topic).

COMMENT 402

We recommend that a vigorous riparian planting program be established to provide stream shade and fish cover which are critical to the needs of salmon and steelhead in the Shasta River.

RESPONSE 402

The Shasta River ACEC extends 1/4 mile above the high water line on both sides of the river. Numerous fish improvement structures have been developed in this area. Some riparian planting has been completed and additional riparian planting will continue. However until the upper reaches of the river are restored, riparian vegetation will have little effect on the water temperature in the lower reaches.

COMMENT 403

We are concerned that the disposal of public lands in critical deer winter ranges, such as in those designated by Trinity County Planning Department in the Weaverville Area Plan, Lewiston Area Plan and Hayfork Area Plan, would reduce long-term values of these areas for deer. During the development of the Weaverville and Lewiston area plans, the BLM ownership was an integral part of the "open space" and deer winter range protection. If these lands become available for exchange, the long-term protection for these deer winter ranges will be significantly reduced.

RESPONSE 403

There could be a slight loss of deer habitat in the sphere of influence of Weaverville, Lewiston, and Hayfork. However, the proposed action, if carried out to its fullest extent, would result in an overall increase of deer habitat on public lands and a potential increase in the Weaverville deer herd.

COMMENT 404

[Commentor] is concerned about the disposal of some of the public lands mentioned in Items 13 and 14, Page 3-84, Ishi Management Area, as they have good wildlife values. We will work with BLM in identifying specific parcels of concern that we would prefer BLM to retain.

[Commentor] is concerned about protecting the Deer Creek and Mill Creek watersheds from degradation by timber harvest, mining and grazing because the streams support unique steelhead trout and spring-run chinook salmon populations. Protecting these watersheds is critical because these two streams support the last gene pool of native steelhead and spring-run chinook in the entire Central Valley. We support the recommendation to have Battle Creek Mill Creek, and Deer Creek included in the National Wild and Scenic Rivers System.

RESPONSE 404

Lands identified in Chapter 3, Section G, Items 13 and 14 will be inventoried prior to exchange for special status resources. Interested parties or agencies would be contacted prior to disposal through the environmental review process. Currently public lands on Mill and Deer Creeks constitute a small percentage of the overall watershed on these streams. The proposed action for these two streams should provide actions that will lead to an improvement in habitat conditions for anadromous fish. BLM has not recommended disposal of public lands within the Deer Creek and Mill Creek corridors.

COMMENT 405

In the case of Clear, Cottonwood, Battle, Mill, Deer, Big Chico, and Butte Creeks, as well as the main Sacramento River, many fishery restoration projects are planned. These are described in the Upper Sacramento River Fisheries and Riparian Habitat Management Pan. The BLM was a member of the 25-member planning team which created and unanimously approved this plan. The RMP should address this issue and describe BLM guidelines and prohibitions pertaining to restoration work on BLM property. This will allow decision makers to more accurately judge the relative benefits and detriments of BLM control along additionally acquired creek corridors.

RESPONSE 405

The RMP has addressed the "Upper Sacramento River Fisheries and Riparian Habitat Management Plan" and a discussion of the how the proposed projects may affect public lands. All projects initiated on public land will be subject to an environmental review, which would be the document to determine the feasibility of a project. If BLM acquires a stream or river corridor, it would probably be because of the fishery resources contained in the stream, along with other resource values. It is not our policy to disallow projects where proper documentation has been completed and the proposed project does not adversely impact equally valuable resources.

COMMENT 406

RIPARIAN ZONES:

In my experience in the Upper Klamath area, I agree with Bill Lawhorn that Class 1 requirements are not practical and that Class 2 would be an attainable goal.

RESPONSE 406

BLM has reviewed its recommendations forriparian classes in the Upper Klamath River and has changed the condition class objective for riparian vegetation to Class II or better.

COMMENT 407

I personally feel the area (Horseshoe Ranch) is hunted excessively due to heavy use during the general deer season and the two late muzzle loader seasons. I recommend that as long as the current muzzle loader seasons are continued, that general season deer season hunting be suspended.

RESPONSE 407

BLM does not have authority to set or control hunting seasons. This is a function of the California Fish and Game Department.

COMMENT 408

Analysis of impacts on wildlife is woefully inadequate. For example, we were unable to find any reference to the California spotted owl, even though the bird is found in the planning area. The exceedingly rare wolverine, although suspected to be in the planning area, is ignored in the EIS.

RESPONSE 408

The California Spotted Owl was included in the RMP. Dan Hunt Mountain has been identified for transfer to the Forest Service so that the California spotted owl located in that area can be managed in conjunction with the an area, that the U.S. Forest Service has set aside for California spotted owls.

Although additional habitat for the California Spotted owl exist in other locations in the Redding Resource Area, these habitats have not been inventoried and were not included in the RMP. These areas when identified will be treated the same as those areas that have been identified for the northern spotted owl.

The wolverine has not been reported on public lands within the Redding Resource Area over the past ten years, however, it is listed in the RMP as a State endangered species as noted on Appendix D.

COMMENT 409

There should be transfer of spotted owl habitat to private ownership. We support transfer to other federal agencies when appropriate.

RESPONSE 409

Any exchange or transfer of spotted owl habitat would have to be approved through consultation with the U.S. Fish and Wildlife Service, in consistency with Section 7 of the Endangered Species Act. Please refer to Chapter 3 under Management Guidance Decisions Common to All Alternatives.

COMMENT 410

Any proposed land transfer needs to have a full wildlife review.

RESPONSE 410

All public lands that are transferred are inventoried for wildlife resources prior to any final action. Please refer to Chapter 3 under Lands and Realty (land tenure adjustment) within Management Guidance and Decisions Common to All Alternatives.

COMMENT 411

In view of the habitat value of riparian areas - if any parcels containing these areas are considered for transer or sale then such action should include the placement of conversation easements to run with the deed to protect a riparian buffer zone as necessary to protect these streams. Such easements would bar grazing, mining, and other development have become a fairly common (and successful) strategy. In addition, I support consolidation of BLM lands in Wild and Scenic corridors as a means to invaluable stream protection. I oppose BLM disposal of lands in riparian corridors unless such disposal would result in a higher level of protection.

RESPONSE 411

Conservation easements and deed restrictions have been used in the past and will be a consideration in future exchanges and transfers involving riparian vegetation (refer to land tenure adjustment, Lands and Realty, Management Guidance and Decisions Common to All Alternative in Chapter 3).

COMMENT 412

The Sacramento Island ACEC should be managed in conjunction with protection and management of associated riparian resources on lower Cottonwood Creek.

RESPONSE 412

BLM feels that conservation agency, such as the California Fish and Game Department would be in the best position to ensure long term protection of parcels on Cottonwood Creek due to their existing and proposed public land presence.

COMMENT 413

The Technical Coordinating Committee of the Trinity River Task Force has been exploring the possibility of mechanically manipulating the river's edge so as to create a feather edge in selected areas. The basic approach is to recreate pre-dam river edge conditions as to provide habitat for young fry. Thus far BLM has been strongly opposed to such proposals and has indicated these proposals are contrary to their stated goals of riparian habitat maintenance. It is recommended that BLM's plan provide for additional flexibility to allow consideration of fisheries habitat needs along such areas.

RESPONSE 413

Riparian vegetation found along stream and river corridors are considered one of highest producers of wildlife biomass and diversity, as such it is BLM policy to protect these areas as wildlife habitat. However projects are allowed to occur in riparian areas when suitable alternatives have been analyzed. A "feather edge project", was allowed on publlic land along the Trinity River after additional proposals were analyzed. The "feather edge project" proposed in l991 is the only project on the Trinity River that has been delayed because of BLM policy. Had other alternatives been submitted as requested by BLM the delay could have been shortened considerably.

COMMENT 414

It is unclear how wetland and riparian areas within the Sacramento River Management Area would be protected, enhanced and/or improved. The FEIS should include this information and summarize the various applicable plans, listed on Page 3-16 of the DEIS (paragraph 3), that are proposed for incorporation into this Resource Management Plan. In addition, we request that BLM notify EPA whenever any of the subsequent activity plans for resource condition objectives are released for public review.

RESPONSE 414

Activity plans are second level plans that are prepared for specific resources, in specific geographic areas. BLM incorporates public input and review in developing these plans. BLM maintains a mailing list of agencies, organizations, and individuals who may be interested. These plans discuss and lay out specific directions for enhancement and protection of a resource. For example, BLM fenced 3 & 1/2 miles of recent acquisitions along the Sacramento River and constructed reservoirs for stock water, to facilitate removal of livestock from the riparian corridor. Other actions that may be taken to enhance wetlands or riparian habitats could include; blockage of drainage ditches, planting of native plant species, grazing restrictions, and motorized vehicle restrictions.

BLM encourages public participation in the development as well as review of its planning documents. The Redding Office of BLM maintains a mailing list of organizations, agencies, and individuals for consultation purposes. Anyone, including EPA, is welcome to be put on this list.

COMMENT 415

BLM should investigate and consider expanding each Owl Habitat Area (OHA) by acquiring adjacent lands.

RESPONSE 415

All of the Spotted owl habitat areas identified for exchange are adjacent to Forrest Service lands and the majority of the habitat is on U. S. Forest Service lands. Spotted owl habitat areas are best managed in large blocks. Since the U. S. Forest Service owns the majority of these owl habitat areas, BLM has determined that the U. S. Forest Service is in a better position to manage these areas.

COMMENT 416

All deer winter range parcels should have deed restrictions based on the series of actions and mitigation measures recommended by the Department of Fish and Game to the Butte County Board of Supervisors for residential encroachment impacts on deer winter range. The recommended actions and mitigation measures, and supporting documentation, are available at the Butte County Planning Department. Because the actions and measures can vary depending upon the parcel location, each will have to be handled on a case-by-case basis.

RESPONSE 416

All land exchanges and or sales are analyzed on a case by case basis at the time of exchange. Any mitigation and or conservation easements would be considered at that time.

COMMENT 417

The proposed action to dispose of Scott Valley lands within the Noyes Valley area seems to work against the stated objectives of the plan; to maintain and improve the deer winter range. The alternative of Enhancement of Natural and Cultural Values is my preference in this area.

RESPONSE 417

The sale or exchange of lands in Noyes Valley is not contradictory to the objectives of the plan. It is less costly and more efficient for BLM to manage deer winter range in large blocks than in small scattered parcels. Each land use management alternative was developed to portray an array of options. BLM had to determine the best mixture of Management Area alternatives that would be reasonable (refer to the Summary and Page 3-1 of this RMP).

COMMENT 418

We have reviewed the Draft Redding Resource Management Plan and Environmental Impact Statement and have identified several concerns. First of all the plans does not adequately evaluate the fishery resource in Trinity River, nor does it address the Bureau of Land Management's responsibility as a cooperating agency in the restoration of the Trinity River. Public Law 98-541 assigned responsibility for implementation of the Trinity River Restoration Program to the U.S. Department of Interior, and as a member of the Task Force, BLM shares the responsibility to manage public lands within the Trinity River Basin for restoration of the anadromous fishery.

Specific comments concerning your draft plan are as follows:

1. The following are examples of information necessary to characterize the "Affected Environment" adequately to evaluate environmental impacts of each proposed alternative.

a. What fish and wildlife species are present in the Trinity Management Area, and what are the economic or social values of these species?

b. What are the population levels/trends of fish and wildlife species of social or economic value within the Trinity Management Area?

c. What are the ecological factors limiting the important socio-economic fish and wildlife species within the Trinity Management Area?

d. The information on salmon and steelhead population trends is incomplete. Since increases in the late 80's there have been severe declines which appear to be at least partially a result of a 5 year drought.

e. The Plan should identify the goals of the Trinity River Restoration Program, and the role of the Bureau of Land Management in the Program.

f. Identify changes in the Trinity River and the adjacent riparian cover which have resulted from the Lewiston and Trinity Dams. Also, describe how these changes have affected the visual diversity and fish and wildlife habitat.

RESPONSE 418

Economic and social values are discussed in the specific management area if it is determined that a species has a significant value. Fish and Wildlife species in the Trinity River Management Area that would have an economic value were discussed in Chapter 2 - Affected Environment and in Chapter 4 - Environmental Consequences. The species of note were black tailed deer, salmon, and steelhead. Population levels were also discussed. The ecological limiting factors for the important wildlife species occurring on public lands are discussed in Chapters 2 and 4. It was not the intent of this plan to list or discuss in detail those items that were not identified as an issue during the public workshops that were held prior to formulation of the draft RMP as noted on Page 1-4 under Planning Issues.

The information on salmon and steelhead population trends has been corrected in the this Final RMP.

Listing the goals and objectives and of every plan that is relevant to the planning area is unnecessary. It would also greatly add to the sheer bulk of the RMP.

The changes in riparian habitat along the Trinity River have been well documented, the purpose of this document is not to list each and every publication that pertains to the nearly ten million acres within the boundaries of the Redding Resource Area.

COMMENT 419

TRINITY MANAGEMENT AREA; PROPOSED ACTION:

This alternative allows for exchange of existing public ownership on Reading and Rush Creeks. This could adversely impact fisheries and may not be consistent with the Trinity River Restoration Program. The Plan should prescribe land acquisition in the Trinity Management Area where needed for fisheries and watershed restoration.

RESPONSE 419

Public ownership on Rush Creek consists of 1/4 mile or less of stream. Transfer of this 1/4 mile would not result in adverse impacts to the fishery resource. Reading Creek flows through public lands for 1 mile or less. Transfer of this section of the creek should not result in adverse impacts. However, if important fishery habitat is present, a conservation easement may be used to protect the resource.

COMMENT 420

The EIS does not adequately evaluate the consequences of the alternatives to the Trinity River fishery. Alternatives which do not meet the intent of PL 98-541 (restoration of the Trinity River anadromous fishery) have the potential to result in conflicts between restoration activities and actions of the alternative.

RESPONSE 420

Impacts to anadromous salmonid habitat are discussed within the Environmental Consequences section chapter in the RMP. BLM has modified the proposed action to consider the acquisition of the Grass Valley Creek watershed within the Final RMP with a specific emphasis of improving the anadromous fisheries within the Trinity River. Overall, the proposed action should have beneficial impacts to this important fishery with the proposed acquisition of 34.5 miles of river segments, possible acquisition of the Grass Valley Creek watershed, and restricted mineral development, grazing, motorized vehicle use and timber harvesting. Also see response to Comment 106

COMMENT 421

Old mining shafts and adits on all public lands are valuable for bat habitat. Openings should be barred to protect bats.

RESPONSE 421

It is BLM's policy to bar abandoned mine shafts, which would not prevent the use by bats.

COMMENT 422

The RMP focuses too narrowly on river frontage for proper consideration of riparian and fisheries habitat. [Commentor] feels that entire drainages should be obtained to control the runoff and erosion, etc. that might disturb any given river. Without control of the surrounding area, BLM could not stop pollution from entering the river.

RESPONSE 422

The proposed action for those management areas that contain stream and river acquisition have been designed to accommodate the riparian corridor. It is not realistic in most areas to acquire entire watersheds especially considering the modest BLM administered public land base within the planning area, i.e. roughly 2.5%.

COMMENT 501

Develop competitive approach to the disposal of public lands.

RESPONSE 501

The methods used in disposing of public land are provided by manuals and directives. Any new approach or method would have to be approved in a process outside of this Final RMP.

COMMENT 502

The public should be involved in potential disposal actions.

RESPONSE 502

The public is involved several times in the process of disposing of public land. The first time the public is involved is in the development of a general land use planas in this RMP. The public is also involved during any subsequent activity plans that are written for the area. Yet another time the public is involved is during the actual disposal process. All disposal actions are made public through notifications in the newspapers and by direct correspondence with local government officials and adjoining landowners. Public involvement in the disposal actions is wanted and welcomed.

COMMENT 503

The counties role should be identified in disposal actions.

RESPONSE 503

The role of the counties in disposal actions initiated by the BLM is a part of Federal regulation. The regulations call for the counties to be notified on each disposal action we do. They are given the chance to comment and provide information as to the disposal. Besides the notification we will be showing the counties the proposed/approved plan to allow them the opportunity to zone the public lands in a manner that they choose prior to disposal.

COMMENT 504

Only land locked public land should be traded.

Evaluate feasibility of acquiring legal access to isolated parcels prior to making available for disposal.

RESPONSE 504

The majority of public lands in the Redding Resource Area are "land-locked" with no legal public access. This was only one of many factors that was used in determining whether the parcels should be retained or disposed of. If a parcel does possess regional public values, we have recommended that it remain in public ownership whether it has public access to it or not.

COMMENT 505

The exchange classification put on public land this winter should be removed.

RESPONSE 505

The "exchange classification" that was placed on public land is a part of the exchange process. All public lands that have been identified as suitable for exchange are segregated from mineral location and other entries for two years from the date a notice is placed in the Federal Register. This "classification" is not a part of the Final RMP/EIS. Rather, it was executed in conformance with BLM's existing, approved land use plan.

COMMENT 506

Think there should be equity in inter-departmental exchanges, i.e. BLM/USFS.

RESPONSE 506

Recommended transfers of administrative jurisdiction of public lands between the U.S. Forest Service and BLM reflects administrative efficiency and enhanced public service. The transfers are not intended to be "exchanges" as title to the land will remain with the U.S. government. Each parcel recommended for transfer from or to BLM was coordinated with the long-term planning direction of each National Forest and BLM. There was (and is) no intention to balance the amount of acreage affected by inter-departmental transfers.

COMMENT 508

No public land should be sold (limit to exchange).

RESPONSE 508

Very little public land will be sold. The overwhelming majority of disposal actions will be through exchanges. Sales will only be used as a final resolution to inadvertent trespasses, or very small parcels, where warranted.

COMMENT 509

2 parcels (Bald Rock and Yolla Bolly) should not be transferred to Forest Service unless Forest Service makes them wilderness.

RESPONSE 509

Neither of the two subject parcels were recommended for wilderness in BLM's suitability study. Wilderness designation is a Congressional action. Should these

parcels be transferred to the Forest Service, it will be up to that agency to re-evaluate the parcels for any kind of designation within their planning process. It would be a Forest Service decision whether to incorporate the Bald Rock parcel into the Feather Falls National Scenic Area. Significant values area known to exist within this parcel which would most likely preclude development or disposal.

COMMENT 510

More public land in the Redding area should be made available for sale because Whiskeytown Recreation Area already offers abundant recreational opportunities.

RESPONSE 510

The majority of public lands in the immediate Redding area have been identified for disposal. However, the public lands identified for retention in the area have other values associated with them besides the type of recreation that Whiskeytown Unit of the National Recreation Area offers. For example, the Final RMP identifies retention of public lands and the acquisition of private lands along Clear Creek. The main objective for this area is to enhance anadromous salmonid habitat. The BLM is also proposing to retain a large area off of Swasey Drive for protection and future studies of several archaeological sites. Both of these areas provide a different type of use than presently available within the Whiskeytown Unit.

COMMENT 520

BLM should increase it's field presence and monitoring of land proportionate to the degree of consolidation of public lands (especially in the Bend area).

RESPONSE 520

BLM currently maintains a field presence in the Bend area with various staff members. Another law enforcement ranger was added to the BLM staff during 1991. With current funding and staff levels, an increase in BLM;s field presence in the area would not be expected. However, the BLM staff has and will continue to provide additional patrols during hunting seasons and other periods of high visitor use in order to provide extra protection to both visitors and to the resources. In addition to the visitor services and law enforcement staff, other BLM employees work in and nearby the Bend area.

COMMENT 521

BLM should acquire additional lands in the Bend Area while selling other unneeded lands to increase the private tax base.

RESPONSE 521

The RMP/EIS does identify the lands in the Bend area for acquisition. Any acquisitions that occur will have to meet the criteria that we have established, i.e., largely unimproved and offered willingly by the landowner. The RMP also identifies large amounts of public land for disposal that could be placed on the counties' tax roles.

COMMENT 523

As to Livestock Grazing, while the document claims that the alternative management proposals would have little significance in respect to the economy of these areas or the availability of suitable rangeland, it completely ignores the effects of grazing on the environment, especially in riparian areas. In order to comply with NEPA, range conditions should be evaluated and inventoried in the RMP/EIS. The RMP/EIS should assess and fully mitigate impacts on rare and sensitive plants and oak regeneration. Finally, there is an implication that grazing will be prohibited in all riparian zones and wetlands (see Pages 4-12-13). Livestock grazing is extremely damaging to riparian habitats and The Wilderness Society applauds this first step in controlling the damage caused by grazing. The document should remove any ambiguity on this issue and more explicitly exclude grazing from all riparian areas and wetlands.

RESPONSE 523

The components of this comment have been addressed by BLM in response(s) to Comments 23 and 20. Please refer to these previous responses.

COMMENT 524

The document's failure to address the impacts on Riparian Habitat is unacceptable. The EIS is confusing and misleading in it use of the term "significant" riparian habitat, which it apparently uses only to include the major rivers in the system. Important tributaries to these major rivers are obviously "significant" as are numerous streams and rivers which are eligible for Wild and Scenic status and which BLM proposes to manage as ACEC's.

Moreover, the document contains no evidence that the many other streams and rivers on BLM land are "insignificant". Lack of eligibility for Wild and Scenic status does not render a river or stream worthless or insignificant.

The complete lack of information on this issue is not cured by the claim, unsupported by <u>any</u> evidence, that "loss of any riparian habitat is offset by acquisition and improvement of creeks tributary to these major rivers." (See page 1-9). In addition to the complete lack of evidence supporting this claim, degrading existing habitat is not excused by simply obtaining other habitat. To cure these problems, a complete inventory of rivers and streams impacted by BLM land must be undertaken

and the impacts of the proposed actions on these streams detailed.

RESPONSE 524

During the RMP process, analysis of riparian vegetation, in conjunction with the proposed alternatives indicated that there was not sufficient evidence of adverse impacts to warrant a discussion in the EIS section. Adverse impacts would be addressed on a site specific basis during project proposals or other BLM or private actions. BLM considers all riparian areas as important, however, those with outstanding remarkable characters are considered significant.

COMMENT 525

The document's failure to address Water Quality and to do a fisheries inventory on all streams on BLM land is unacceptable.

RESPONSE 525

Water Quality has been addressed in the alternatives section under "Management Guidance and Decisions common to all Alternatives". A fisheries inventory of all the streams in the resource area was completed in the early 1980's, it is not necessary to re-inventory within such a short time frame.

COMMENT 526

The document inadequately addresses wilderness issues. The 640 acre parcel adjoining the Yolla Bolly wilderness has been incorrectly determined to be unsuitable for inclusion into the National Wilderness System. It clearly has wilderness character and there are not competing uses. Moreover, its size is irrelevant since it will be added to existing wilderness areas.

BLM should also investigate the feasibility of exchanges or purchases of private land to the east of this parcel to further increase the size and improve the wilderness character of the Yolla Bolly wilderness.

RESPONSE 526

The 640 acre parcel of public land adjoining the Yolla Bolly Wilderness Area was determined by BLM as unsuitable for inclusion in the National Wilderness System. BLM is obligated to manage the parcel in a manner which would not impair its suitability for inclusion in the System pending the conclusive action of the U.S. Congress. In the proposed action (Administrative Adjustment alternative), the parcel is identified for transfer to the Trinity National Forest. The U.S. Forest Service will determine future management prescriptions for this parcel subsequent to the actions of the U.S. Congress.

BLM considered expansion and consolidation of public lands east of this parcel in the Resource Use With Natural Values Consideration alternative. The purposes of this expansion did not consider the expansion of the Yolla Bolly Wilderness Area. BLM can not reasonably consider inclusion and consideration of areas dominated by private land ownership into the National Wilderness System. Moreover, BLM can not establish additional wilderness study areas unless the agency administers at least 5,000 acres of contiguous public land.

COMMENT 527

RMP should provide acreage for counties, so comparisons can be made for economic analysis.

RESPONSE 527

The following figures are provided for the Proposed Action for each county. The numbers represent a gain or (loss) of privately owned land.

COUNTY	PRIVATE GAIN OR (LOSS)
Siskiyou	13,070
Trinity	(39,210)
Shasta	(8,330)
Tehama	6,680
Butte	2,790
TOTAL	(53,420)

To compare the loss or addition to public land acreage base in greater detail for each county, please refer to Table 4-1 in Chapter 4 of this Final RMP. Please note that these acreage computations necessarily assume full implementation of the RMP.

For more detailed information on Siskiyou County please refer to Appendix H.

COMMENT 528

Oak groves on BLM land is western Tehama County should have conservation easements if they are going to disposed.

RESPONSE 528

Conservation easements may be used to protect significant resource values including but not limited to special status species and significant cultural resources. Please refer to Comment 37 for additional discussion.

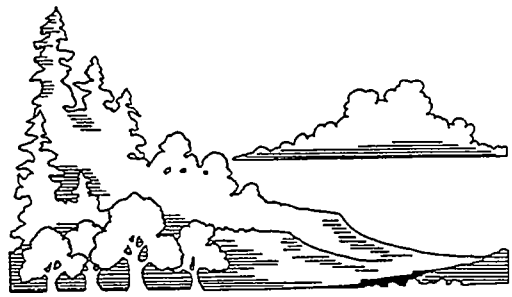
COMMENT 529

What is the impact to private land within a Wild and Scenic River corridor?

RESPONSE 529

Impacts to private land within an established National Wild and Scenic Rivers System (NWSRS) corridor could include: increased land value, increased pedestrian trespass problems, enjoyment of the protection of natural values of the waterway and on adjoining public lands, and increased public usage of the adjoining waterway and associated public lands.

APPENDIX A
WILD AND SCENIC RIVER ELIGIBILITY AND PRELIMINARY CLASSIFICATION REPORT



APPENDIX A

WILD AND SCENIC RIVER ELIGIBILITY

AND

PRELIMINARY CLASSIFICATION REPORT

INTRODUCTION

The BLM is mandated to evaluate potential additions to the National Wild and Scenic Rivers System (NWSRS) by Section 5(d) of the Wild and Scenic Rivers Act (WSRA) during the Resource Management Plan (RMP) process. NWSRS study guidelines are found in BLM Manual 8351, U.S. Departments of Agriculture and Interior guidelines published in Federal Register Vol. 7, No. 173, September 7, 1982, and in various BLM memoranda and policy statements.

The NWSRS study process has three distinct steps:

1. Determine what rivers or river segments are eligible for NWSRS designation.

2. Determine the potential classification of eligible river segments as wild, scenic, recreational, or any combination thereof.

3. Conduct a suitability study/legislative EIS to determine if the river segments are suitable for designation to the NWSRS.

Any river found to be eligible for inclusion in the NWSRS, will result in the associated BLM administered lands, within 1/4 mile of the river, being managed as if the river were an actual component of the NWSRS, until the suitability issue is resolved. If a river is found to be suitable for inclusion into the NWSRS, congress must then pass legislation designating the river before it is added into the system. The State of California can also include the river as a State designated Wild & Scenic River and then apply to the Secretary of Interior for its inclusion into the NWSRS.

The following discussion provides information on how BLM considered streams and rivers for potential inclusion in the NWSRS. The first section portrays what efforts BLM used to identify study river corridors. The second section discusses eligibility criteria. The third and fourth sections are brief statements on how BLM addressed classification and suitability, respectively. The majority of this appendix contains a description of the values within each study river corridor followed by a conclusion on eligibility and recommendation for preliminary classification.

IDENTIFICATION

Prior to conducting any assessment for inclusion in the NWSRS, BLM established a list of study river corridors. BLM considered existing lists of such river corridors (i.e., the Nationwide Rivers Inventory and Outstanding Rivers List), public input, and BLM staff nominations. Fourteen corridors were identified for study as a result of that process. These corridors include: Battle Creek, Beegum Creek, Big Chico Creek, Butte Creek, Clear Creek, Cottonwood Creek, North Fork Cottonwood Creek, Middle Fork Cottonwood Creek, South Fork Cottonwood Creek, Deer Ceek, Mill Creek, Paynes Creek, Sacramento River, and Shasta River. These study corridors are generally well known and have significant public ownership.

As a result of public comments on the Draft RMP, the Redding BLM conducted a full eligibility assessment of Antelope and Bear Creeks.

In addition to the study corridors considered by the Redding office for eligibility for inclusion in the National Wild and Scenic River System, three additional streams have been determined eligible by others. Within Siskiyou County, Jenny Creek and the Klamath River above Copco Reservoir were determined eligible by the Medford and Klamath Falls offices, respectively, of the BLM.

The lowermost segment of Canyon Creek in Trinity County was determined eligible by the U.S. Forest Service. Redding BLM has defered to these federal offices to determine classification and suitability for inclusion into the National Wild and Scenic River System.

Streams lacking public lands administered by BLM were not considered for analysis. BLM also considered and rejected numerous streams from further analysis if: public ownership was limited; BLM resources information was sufficient to identify the lack of outstandingly remarkable values/free-flowing characteristics; or streams were essentially similar to corridors already identified for consideration within the general vicinity. A listing of these rejected streams by county include:

BUTTE

Tributaries of Butte Creek, tributaries of the Feather River, Little Chico Creek, Mud Creek, tributaries of South Fork Battle Creek

SHASTA

Andrews Creek, Ash Creek, Bear Creek tributaries, Clear Creek (and tributaries) above Whiskeytown Lake, Cow Creek (and tributaries), Duncan Creek (and tributaries), Jerusalem Creek, Middle Creek, Montgomery Creek, North Fork Battle Creek, Olney Creek (and tributaries), tributaries of the Pit River, Rock Creek, Salt Creek, Spring Creek.

SISKIYOU

Brush Creek, Brushy Gulch, Cottonwood Creek, Dry Creek, Duzel Creek, French Creek, Greenhorn Creek, Indian Creek, Kidder Creek, McAdam Creek, McConoughy Gulch, Meadow Gulch Creek, Noyes Valley Creek, Patterson Creek, Scotch Creek, Shovel Creek, Slide Creek.

TEHAMA

Brush Creek, Elder Creek (and tributaries), Inks Creek, Pine Creek, Red Bank (and tributaries), Rock Creek, Sevenmile Creek, and the tributaries of South Fork Cottonwood Creek, Stinking Creek, Thomes Creek (and tributaries), Wells Creek, Zimmershed Creek.

TRINITY

Carr Creek, Deadwood Creek, Indian Creek, Rush Creek, Sheridan Creek, Weaver Creek.

ELIGIBILITY

The WSRA states that to be eligible for inclusion in the NWSRS, a river or river segment must be free flowing and with its immediate environment, must possess one or more outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values.

Free flowing, as defined in Section 16(b) of the WSRA, means "existing or flowing in natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway. The existence, however, of low dams, diversion works, and other minor structures at the time any river is proposed for inclusion in the national wild and scenic river system shall not automatically bar its consideration for such inclusion." A river may flow between large impoundments and may qualify if conditions within the segment meet the eligibility criteria. There are many river segments already in the NWSRS which are downstream from or between major dams which severely regulate and diminish the flow of water in the effected segments. Some examples are: the Trinity River, Klamath River, and Tuolumne River in California, the Snake River in Idaho, and the Deschutes River in Oregon. Some of these rivers have had certain types of recreation enhanced by the water flow regulation of these dams. Examples of designated rivers with substantial diversions within the NWSRS segment, at the time of designation, include the North Fork Kern River and the upper Merced River, both in the California Sierra. There are no minimum flow requirements for inclusion into the NWSRS.

There are no minimum river segment lengths in the NWSRS. Congress has designated a segment as short as 4.25 miles. Considerations in defining study segments include substantial changes in land ownership, physical changes in the river and its surrounding land characteristics, and the type and amount of modern human modification.

The term "outstandingly remarkable" is not clearly defined in the WSRA; consequently the determination of what constitutes "outstandingly remarkable" is left to the professional judgement of the managing agencies and their staffs. Outstandingly remarkable means something which is more than ordinary when considered within a regional (Resource Area wide) context. In order for the river to be considered eligible in this study, the outstandingly remarkable value(s) must occur on BLM administered public lands within 1/4 mile of the river.

Some examples of outstandingly remarkable values are as follows: scenic quality rating of "A" (BLM Manual 8400 Visual Resource Management-Scenic Quality); threatened or endangered species critical habitat; physiographical, biological, recreational, geological or ecological type locations (exemplar); and areas which are very natural or primitive in character, showing little, if any, evidence of modern human modification, and which may be very rugged and physically challenging to travel through.

If an outstandingly remarkable characteristic occurs anywhere within the segment, that characteristic is underlined. If the outstandingly remarkable characteristic identified occurs on BLM administered lands, the category and characteristic are marked with an asterisk (*).

Streams and rivers containing study corridors may include segments that have no present BLM administered lands adjoining them. This study does not offer any eligibility conclusions in these instances. Segments or corridors deemed ineligible in this study because of lack of outstandingly remarkable values on BLM administered lands, may have outstandingly remarkable values on non-BLM lands. In this instance, BLM defers to other appropriate organizations and agencies to (re)evaluate these segments and corridors. BLM would participate in any joint studies with the responsible agency(s), as appropriate.

CLASSIFICATION

To ensure that outstandingly remarkable values located on public lands are not adversely impacted by BLM authorizations, each eligible study corridor has been assigned preliminary classifications. These classifications are described by segments of each eligible study corridor with similar characteristics of development, access, water quality, and definable geographic boundaries.

These preliminary classifications are based upon the classification definitions found in Section 2 (b) of the Wild and Scenic Rivers Act, Public Law 90-542 of October 2, 1968 (see GLOSSARY for the classification definitions as they are contained in the Act and subsequent Federal regulations). The preliminary classification(s) and rationale for these classifications are found at the end of the eligible discussion for each eligible study corridor.

SUITABILITY

Suitability determinations of eligible waterways for inclusion into the NWSRS have been deferred to an undetermined date due to BLM budgetary and personnel constraints. The BLM proposes to conduct cooperative suitability studies on many of these waterways where other Federal, State and local government agencies have management responsibilities.

A suitability determination for Beegum Creek is deferred until long term Federal administration is resolved, i.e., impending transfer to the Trinity National Forest.

ANTELOPE CREEK

Antelope creek is located in Tehama County, easterly of Red Bluff, California. Its headwaters form at Turner Mountain, south of Mineral California and it flows westerly into the Sacramento River. The study coridor starts at the western boundary of the Tehama Wildlife Management Area and ends at the diversion dam located 1.6 miles upstream of Cone Grove Road (MAP A-1). There is only one BLM admistered parcel along this creek with total creek frontage of less than 0.1 mile.

Total Miles/BLM Miles. 10.5 / 0.08

Free Flowing Discussion. There are several remnants of dams along this section of Antelope Creek and a diversion dam at the lower end of the study coridor. These developments do not detract from the overall free flowing nature of the creek.

Cultural/Historic Values. The public land parcel contains remants of an old diversion dam and conduit, which supplied water to the city of Red Bluff during the latter half of the nineteeth century.

Fisheries. Salmon and steelhead trout are known to use Antelope Creek for spawning purposes. It is not considered by fisheries experts to be an important spawning stream.

Physiography/Geology. The Antelope Creek study corridor is in a rocky, 400 to 500 feet deep, and 1/2 mile wide canyon, which abruptly terminates when the creek enters the Sacramento Valley. The geology of this corridor consists of Cenozoic in age volcanic rock and volcanically derived sediments which have been emplaced in the Sacramento Valley.

Recreation. Recreation consists of some hunting and fishing which is very limited due to a lack of public access. The river difficulty rating of this creek is probably class III to V, with flows too limited to float during the summer and fall.

Vegetation. Vegetation in the canyon is generally sparce, consisting of a thin riparian vegetation zone along the creek, and chapparel and grasslands occurring in the rocky uplands.

Scenic Quality. Some of the Antelope Creek canyon area warrents a scenic quality rating of "A". However, the scenic quality of the BLM parcel is estimated to be a "B" rating.

Water Quality. The water quality is probably good or better.

Wildlife. The BLM lacks specific inventory data on this canyon, but it is believed the wildlife species present should be similar to those found in Deer and Mill Creek canyons. These species include: mountain lion, black tailed deer, fox, coyote, cliff nesting birds, wild pig, valley quail, wild turkey, and neotropical birds.

Socio-Economic Uses. Uses of this creek are probably limited to cattle grazing and downstream irrigation. A private unpaved road follows the creek along its north shore through the BLM parcel and upstream to an old dam site.

Eligibility Conclusion: INELIGIBLE

BATTLE CREEK

The study corridor starts at the Ponderosa Way Bridge below the confluence of Panther Creek with South Fork Battle Creek, seven air miles west of Mineral, California. South Fork Battle Creek flows westerly to the confluence with the North Fork Battle Creek at the Shasta-Tehama County line. Battle Creek continues along this boundary, west to its termination at the Sacramento River. Development on this corridor consists of the Battle Creek Hydroelectric Project facilities, the Coleman Fish Hatchery, transient hunting and fishing camps and occasional road and utility crossings. Most of the BLM administered lands, scattered along the study corridor, are located on the South Fork. Refer to MAP 3-6c and MAP 3-8b (in packet) for the location of this study corridor.

Total Miles/BLM Miles. 39.7/ 4.9

Free Flowing Discussion. Three major water diversions occur on the study corridor: South, Inskip, and Coleman. These small dams divert water into canals to feed the downstream power houses of the same names. During the summer and fall months, most of the water in the drainage is diverted through these canals, leaving behind minimal "fish flows". During the normal high flows of the winter and spring, the proportion of water diverted from the creek drops to much less than half. These small dams impound virtually no water and, in spite of the seasonally large water diversions, the overall study segment can be considered free flowing.

Cultural/Historic Values. Within the canyon are remnants of the "Battle Creek Hydroelectric System" of the historic American Engineering Record and National Register of Historic Places. These ruins are all that remain of this hydroelectric system, the first built in the region. There is a medium-sized undisturbed midden mound within South Fork canyon of high importance, along with rock shelters and other prehistoric sites.

Fisheries. Battle Creek is an extremely important site of anadromous fish spawning, which is generally limited to the portion of the creek below the Coleman National Fish Hatchery. Upstream diversions of the Battle Creek Hydroelectric Project have all but eliminated spawning above the Coleman Powerhouse. Native and introduced trout are present in the upper reaches.

Physiography/Geology. Battle Creek has eroded its way through the Cenozoic volcanic deposits and volcanically derived sediments of the Cascade Range and associated flows out onto the Sacramento Valley. Most of the rock exposed is considered to be Quaternary to Tertiary in age. South Fork starts out in a large meadow south of Mineral, but soon enters South Fork canyon, a 1000 to 2000 feet deep rocky gorge with limited access. By the time the South Fork joins North Fork Battle Creek, the surrounding country is much lower and gently rolling. Here, Battle Creek has incised its way down 200 to 500 feet. When the creek enters the Sacramento River flood plain, it is slow and meandering through the flat low-lying alluvial sediments.

Recreation. * Float tubing is popular below the Coleman Power plant where access and sustained water flows are available. Trout fishing is common above Coleman Fish Hatchery where access is available. Whitewater rafting and kayaking are growing in popularity on that portion from the Coleman Diversion Dam on the South Fork, down to Coleman Power Plant. Because of the water diversion out of the creek, flows

are only adequate in the winter and spring after heavy storms and during snow melt. * Floating this portion gives the boater a primitive type of experience because of the general lack of human intrusions that can be seen from the creek and pristine condition of the riparian corridor. This portion of white water has a difficulty rating of Class III to IV (See River Difficulty Rating in Table A-1 at the end of this appendix). * It is considered to be a classic boating run of this difficulty because of the overall quality of the experience, i.e. the scenery, rapids, seclusion, and naturalness. Below the Coleman Power Plant the creek is a Class I to II.

Vegetation. Lush riparian vegetation fills the bottom of this narrow canyon. Along the lowest 5 to 6 miles, below the Coleman Fish Hatchery, the creek starts to meander and the zone of riparian vegetation increases until a classic old-growth riparian ecosystem is reached in the Sacramento River flood plain. Valley oak-brushland vegetation covers the side slopes and rims of the lower canyon. The South Fork canyon is characterized by the transition to a oak-conifer, and near the headwaters, a mixed conifer type of vegetation. Some public land parcels contain large stands of mature conifers.

Scenic Quality. * The scenic quality of this creek has been rated as an "A".

Water Quality. Water quality is good to excellent.

Wildlife. Battle Creek provides excellent but limited nesting areas for several species of raptors, including prairie falcons, red tailed hawks, turkey vulture and golden eagles. Bald eagles have been observed nesting along the lower reaches of the creek. Other wildlife species include bobcat, mountain lion, blacktailed deer, mink and raccoon.

Socio-Economic Uses. The two major uses of Battle Creek are hydroelectric generation and anadromous fish spawning. The Battle Creek Project consists of five powerhouses, two storage reservoirs, three forebays, six diversions, numerous tributary diversions, and a network of some 20 canals, flumes, ditches, and pipelines. (Some of these are associated with North Fork Battle Creek). Even though these flumes and ditches parallel the creek, they are usually not visible from the creek itself. Fall Chinook salmon runs averaged 25,000 in the 1980s. This occurred primarily in the Coleman Fish Hatchery and in the downstream creek segment. Cattle grazing is prevalent in this region. Timber harvesting has probably occurred near the upper reaches of the creek.

Eligibility Conclusion: ELIGIBLE

CLASSIFICATION

Battle Creek has been subdivided into four sections for preliminary classification. The segment between Ponderosa Way Bridge and Manton Road Bridge is RECREATIONAL since this section is dominated by hydroelectric development including low dams, diversions, utility lines, and appurtenant service roads. The segment between Manton Road Bridge and the major bend 1/4 mile upstream of the Coleman powerhouse is SCENIC since the canyon is largely primitive undeveloped shoreline with limited accessibility. The segment between the major bend 1/4 upstream of the Coleman powerhouse and Jelly's Ferry Road Bridge is RECREATIONAL because there are diversions and shoreline development, as well as several road access points. The section between Jelly's Ferry Road Bridge and the Sacramento River is SCENIC because there are no impoundments and the shoreline is undeveloped with the exception of a potentially historic abandoned building.

BEAR CREEK

Bear Creek is located in south central Shasta County east of Redding California. Originating on the west side of Lassen Volcanic National Park, North and South Forks of Bear Creek flow westerly to their confluence approximately one mile north east of Inwood, CA. From there, Bear Creek flows westerly, crosses under State Highway 44, then flows southerly into the Sacramento River. The study corridor is limited to where BLM administered lands are located, that is, from the forks down to the State Highway 44 bridge crossing.

Total Miles/BLM Miles. 9.7 / 4.0

Free Flowing Discussion. Bear Creek Hydroelectric facility diverts some of the water of the South Fork Bear Creek into a penstock, which then drops the water down to the generating facility on Bear Creek near the upstream end of the study corridor. This creek is free flowing in character.

Cultural/Historic Values. There are no known cultural or historic values of any significance.

Fisheries. Native Rainbow trout are present in this corridor.

Physiography/Geology. Bear Creek is incised into a 850 feet deep canyon. The creek flows over numerous small cascades and rapids. Bear Creek has eroded its way through the Cenozoic volcanic deposits and volcanically derived sediments of the Cascade Range and associated flows out onto the Sacramento Valley. Most of the rock exposed is considered to be Quaternary to Tertiary in age.

Recreation. * Recreation is thought to be limited to hunting, fishing and hiking. *Much of Bear Creek canyon is secluded, undeveloped, physically demanding, and inaccessible by roads or trails, which gives it a primitive setting and excellent opportunities for primitive types of outdoor experiences.

Vegetation. Vegetation is dense, especially on the north slopes. Digger pine, oaks, and chaparral type brush predominates, with pockets of Ponderosa Pine, Incense Cedar and Douglas Fir occurring at the higher elevations. A narrow corridor of riparian vegetation is located along the length of the creek.

Scenic Quality. Bear Creek Canyon has been rated a "B" in scenic quality.

Water Quality. Good or excellent.

Wildlife. Wildlife in the Bear Creek area would be typical of that found in most riparian areas of northern California. The study corridor is in important deer winter range and contains good populations of wild turkey. Wood ducks nest in tree cavities in this area.

Socio-Economic Uses. The Bear Creek hydroelectric facility produces electricity seasonally.

Eligibility Conclusion: ELIGIBLE

CLASSIFICATION

Bear Creek from the State Highway 44 bridge upstream to the east side of section 26 is classified as SCENIC. The remaining upstream upstream portion is WILD.

BEEGUM CREEK

Beegum Creek flows from west to east and forms the natural boundary between Shasta and Tehama Counties. The creek starts at the source of the Middle Fork Beegum Creek, near the Trinity-Tehama County boundary, and ends at the confluence of Beegum Creek and Middle Fork Cottonwood Creek. The study corridor consists of the middle 4.4 miles of mostly BLM managed lands within Beegum Gorge beginning at the Trinity National Forest boundary and ending at Highway 36 (MAP 3-10a in packet).

Total Miles/BLM Miles. 4.4/ 4.4

Free Flowing Discussion. There are no known diversions or impoundments on Beegum Creek. The creek has year-round flows.

Cultural/Historic Values. Remains of early chromite and placer gold mining.

Fisheries. Resident Rainbow trout, steelhead and spring run Chinook salmon.

Physiography/Geology. The study corridor and the segment above within the Trinity National Forest are mostly in a moderate to steep walled narrow gorge, over 2000 feet deep in places. The creek bed is filled with large boulders and contains many deep pools and numerous waterfalls. Below the study segment Beegum Creek becomes a moderately wide canyon with gentle slopes and canyon depths of up to a few hundred feet. The creek bed here consists of cobbles and gravels. The upper and middle segments flow through the Paleozoic metasediments and Mesozoic ultrabasic (serpentine) rocks of the Klamath Mountains geologic province. The lower segment is in the Sacramento Valley and cuts into Cretaceous age sedimentary rocks and alluvial deposits.

Recreation. * Fishing is the primary recreational use of Beegum Creek. The U.S. Forest Service maintains a campground along the creek in the upper segment. Some swimming and tubing probably occur in the accessible portions during the summer. * Beegum Creek Gorge offers a natural primitive type of outdoor experience to the hiker willing to scramble over the rugged terrain in the canyon bottom. The upper and middle segments probably contain un-boatable whitewater and the lower segment probably has a difficulty rating of Class II (refer to Table A-1).

Vegetation. The lower canyon contains lush riparian vegetation and has brushy oak woodland in the associated uplands. The remainder of the study corridor has a sparse riparian zone due to the deeply incised nature of the canyon. The steep slopes contain brushy oak woodland grading up into oak-conifer woodland as the headwaters are approached.

Scenic Quality. * The land polygon containing Beegum gorge has a "B" scenic quality rating. This evaluation discounted the narrow Beegum Gorge and focused on the drab, brush-covered, adjoining uplands. * Evaluating just the river corridor itself, it is estimated to have a scenic quality rating of "A".

Water Quality. Good to excellent

Wildlife. Wildlife species are typical of the annual grasslands and chaparral ecosystems. These species include black-tailed deer, mountain lion, bobcat, coyote, wild turkey, valley and mountain quail. Bald eagles probably use the lower part of the stream during the winter and spring months for food gathering.

Socio-Economic Uses. Several ranches occur along the lower segment of the creek. Fences cross the creek in several places. Timber harvest has probably occurred along the upper segment. Chromite mining has occurred along the upper and possibly middle portions of Beegum Creek during the 1930s and 1940s.

Eligibility Conclusion: ELIGIBLE

CLASSIFICATION

Beegum Creek between the Trinity National Forest boundary and Highway 36 is classified as WILD because it is free of impoundments, has no shoreline developments, and is accessible only at the ends of the segment.

BIG CHICO CREEK

Big Chico Creek starts in Chico Meadows and flows in a south-southwesterly direction towards Chico, California. The study corridor begins at the creek's source and continues downstream to the power line crossing east of Horseshoe Lake, in Chico's Bidwell Park. BLM managed public lands are located in the middle segment, which comprises the study corridor, and is defined as that portion of the creek from Ponderosa Way bridge upstream to the unnamed road crossing in T. 25 N., R. 3 E., Section 29. The Lassen National Forest manages approximately one mile of Big Chico Creek in the upper segment. They have deferred an eligibility determination due to a lack of public lands. The lower segment is wholly within private ownership and is not analyzed by BLM.

Total Miles/BLM Miles. ~36.5 / 1.7 (Upper Segment: ~16 / 0; Middle Segment: 8.5 / 1.7; Lower Segment: ~12 / 0)

Free Flowing Discussion. The study corridor is free flowing with no known major impoundments.

Cultural/Historic Values. There are no known outstanding values. Remnants of the Chico Flume, which was used for transport of lumber, are located in this canyon.

Fisheries. Some trout and anadromous fish.

Physiography/Geology. Big Chico Creek starts in the southernmost portion of the Cascade Range in Cenozoic volcanic rocks. About half way downstream in the study corridor, the creek has eroded down through thousands of feet of Tertiary in age volcanic rock into the underlying Sierra Nevada basement rock. Exposed along the middle segment are Tertiary auriferous stream channels and their associated drift mines, perched above the present creek bed, cross-cutting ultramafic intrusives, and representative geology of the Sierras. The upper portion of the creek is in a canyon of moderate relief, but then it gradually becomes incised into a steep narrow box canyon bounded by rock walls. The creek bottom can be described as pool-drop in nature, with waterfalls and large cascades comprising many of the drops.

Recreation. * Fishing, hunting, hiking, swimming in deep pools, and nature study. * Most of the study corridor is in a remote, rugged, natural setting, offering the user outstanding opportunities for primitive types of recreation.

Vegetation. The upper reaches are in an expansive mixed conifer forest with scattered meadows. This transforms with a decrease in elevation to an oak woodland with chaparral in the lower portions of the study corridor. A thin belt of dense riparian vegetation is common along much of the stream.

Scenic Quality. Overall scenic quality rating has been determined to be a "B". The scenic quality of many of the BLM administered lands is estimated to be "A".

Water Quality. Good to excellent.

Wildlife. Wildlife species found in this stream are typical of riparian habitats in the oak woodland ecosystem and the chaparral ecosystem. Some of these species are mountain lion, bobcat, coyote, gray fox, gray squirrel, ring-tailed cat, raccoon, valley quail, common mergansers, wood ducks, black-tailed deer and many black bears.

Socio-Economic Uses. Recreation, cattle grazing, placer mining.

Eligibility Conclusion: ELIGIBLE

CLASSIFICATION

Big Chico Creek - Minnehaha Mine parcel (T.24 N., R. 3 E., Section 8, SE1/4) is classified as RECREATIONAL. Remainder of middle segment is WILD.

BUTTE CREEK

Butte Creek is located between Chico and Paradise in Butte County, California. The study corridor is defined as starting at its confluence with West Branch Butte Creek and flowing southerly to the joining of Butte Creek and Little Butte Creek. Other portions of the creek were not studied because of the paucity of BLM administered lands. The upper 14.2 miles is best characterized as a deep canyon, with the creek sometimes in steep narrow inner gorges. Most of this upper segment is undeveloped with only an occasional house, bridge crossing, or small diversion dam impacting the creek. In contrast, the lower 4.8 miles below the Centerville bridge crossing, is relatively open, with many houses and placer tailings piles along the banks (MAP A-2).

Total Miles/BLM Miles. 19.0 / 4.9 (Upper Segment: 14.2 / 4.4; Lower Segment: 4.8/0.5)

Free Flowing Discussion. Butte Creek is a free flowing creek of 20 to 50 feet in width and steep gradient. Water is diverted out of Butte Creek (above the study corridor) into the Butte Creek Canal. This water flows back into the creek at the DeSabla Power House. One thousand feet below DeSabla Power House, water is diverted into the Lower Centerville Canal which flows down to the powerplant at Centerville, 2000 feet upstream of the Centerville bridge. An additional diversion is planned approximately 1400 feet below Ponderosa Way bridge. This will divert water into an underground tunnel down to DeSabla Power House. Even though water is diverted from above and within the study corridor, the remaining water within the segment remains free flowing. Typical winter and spring flows are of such a magnitude that it is difficult to ascertain that any water is being diverted from the stream channel. Existing and planned diversions impound such minuscule portions of the creek that these appear just as other slow moving portions of the creek.

Cultural/Historic Values. * Butte Canyon was an important gold mining area in the last half of the 1800s and in the early part of the 1900s. * Helltown, Diamondville, Centerville and Forks-of-Butte were important mining communities which sprang up along the creek. Some of the attendant historic remains are considered to be unusual or outstanding and some occur on public lands along the creek. Ancient buried gold-bearing stream channels were mined via numerous underground drift mines, in the canyon slopes above the creek. Remains of early hydroelectric development are also found in this corridor.

Fisheries. Butte Creek supports a high value resident native rainbow trout, brown trout, and in the lower portions, Chinook salmon population. Creek segments on public lands contributes to these species.

Physiography/Geology. * Butte Creek has eroded down through thousands of feet of Tertiary age volcanic rock into the underlying Sierra Nevada basement rock. * Exposed along this corridor are outstanding examples of: Tertiary auriferous stream channels and their associated drift mines, perched above the present creek bed; cross-cutting ultramafic intrusives; and exemplary geology of the northern Sierra. * Much of the canyon's upper segment is steep and rugged, with shear canyon walls and abrupt rock pinnacles. * The water in the upper segment flows over a boulder-covered bed with many spectacular waterfalls in the creek and, after winter rains, waterfalls dropping into the creek from side drainages. The lower segment is much more open, with numerous gravel bars and placer tailings piles.

Recreation. * Much of the accessible portions of the creek are used for placer gold collection (panning, sluicing, and suction dredging), fishing, swimming, hiking, sunning, picnicking, nature study, tubing, and limited whitewater boating. * The diversity and high quality of these recreational experiences is an outstandingly remarkable feature. A well used hiking trail parallels the upper portion on the west side of the creek. Other creek portions contain various trail segments of lesser use. Whitewater boating is light and generally limited to the portions below DeSabla Power House, where the river is rated as Class IV to VI (refer to Table A-1) down to Helltown, and Class III to IV down to Centerville Bridge, and Class I to II to the end of this segment. Spring and summer tubing is very popular below Centerville Bridge. * Hiking and boating in the undeveloped upper segment canyon setting can give the user a rugged primitive type of adventure.

Vegetation. The vegetation is a very diverse mixture of oak-woodland chaparral, mixed conifers, and riparian. Timber has been selectively harvested from within the canyon in the past. riparian vegetation is most abundant in the lower portions where the creek bottom is wider and more alluvial is present to support this type of growth.

Scenic Quality. * The upper segment has a scenic quality rating of "A". The lower segment is probably of "B" scenic quality.

Water Quality. Water quality is good to excellent.

Wildlife. Wildlife species found in this stream are typical of riparian habitats in the oak woodland ecosystem and the chaparral ecosystem. Some of these species are mountain lion, bobcat, coyote, gray fox, gray squirrel, ring-tailed cat, raccoon, valley quail, common mergansers, wood ducks, black-tailed deer and a few black bears.

Socio-Economic Uses. Placer mining still occurs in and along Butte Creek in the form of suction dredging, sluicing, and some mining of the high benches. Residential development is increasing rapidly along the lower segment. Timber harvesting has occurred in Butte Creek canyon.

Eligibility Conclusion: Upper Segment - ELIGIBLE
Lower Segment - NOT ELIGIBLE

CLASSIFICATION

The segment of Butte Creek between its confluence with the West Branch and the Centerville Bridge has a preliminary classification as SCENIC. The segment contains two minor bridge crossings and a small hydroelectric facility (De Sabla powerhouse). Another low-head hydroelectric facility has been previously approved. This development is designed to conform with the natural setting and to divert yet not appreciably impede stream flow. This and the existing impoundment are regarded as minimal in context of the entre segment. Similarly, scattered dwellings along the corridor do not appreciably affect the visual setting of the Creek.

CLEAR CREEK

Clear Creek is located five miles southwest of Redding, California. The study corridor starts below Whiskeytown Dam at the boundary of the Whiskeytown Unit of the Whiskeytown-Shasta-Trinity National Recreation Area (NRA), and terminates at the confluence with the Sacramento River. The study corridor consists of a canyon and a valley segment (MAP 3-5a in packet) and MAP A-3, respectively). The uppermost river segment (Whiskeytown segment) occurs within the NRA and is administered by the National Park Service (NPS). The canyon segment starts at the NRA boundary and flows south to the Clear Creek Road bridge crossing. The valley segment flows in an easterly direction to the Sacramento River.

Total Miles/BLM Miles. 13.6 / 1.1 (Canyon Segment: 5.3 / 0.5; Valley Segment: 8.3 / 0.6)

Free Flowing Discussion. Clear Creek flows are heavily regulated by Whiskeytown Dam, which allows approximately 15% of Clear Creek's natural flow to go downstream. Below this dam, flow is unimpeded until McCormick-Saeltzer dam is encountered near the head of Clear Creek Valley. This small dam has its reservoir filled with sediments and stores little if any water. Water flows over this dam year-round.

Cultural/Historic Values. Gold was discovered in Shasta County at the end of Clear Creek valley at Readings Bar. The early mining town and district of Horsetown was centered northeast of this bar. Public lands within 1/4 mile of the creek contain examples of early high bench placer mining and interesting ditch construction through the Nomlaki Tuff Formation.

Fisheries. Fisheries in Clear Creek have been massively impacted by the reduced stream flows from Whiskeytown Dam, past placer gold dredging and recent sand and gravel mining in Clear Creek valley. McCormick-Saeltzer Dam also impedes any anadromous fish migration past this point. Clear Creek supports an average run of about 2,000 salmon and a few steelhead.

Physiography/Geology. The first 9.3 miles of Clear Creek flows though steep rugged canyon terrain. The creek bed contains boulders and is plugged with large boulders at several points. Quiet pools are separated by fast water and small rapids. At Clear Creek Road bridge, the creek enters a wide alluvial valley, heavily modified by past bucketline and dragline dredging for placer gold. Large extensive tailings piles have been left behind in most of the valley bottom. A small rocky gorge is located immediately below McCormick-Saeltzer Dam. The geology in the canyon is that of the Klamath Mountains, locally consisting of igneous intrusives, metasedimentary and metavolcanic rock types. The

geology of the valley is alluvium covered, with some intrusives, metamorphics, and sedimentary rocks along the periphery of the corridor.

Recreation. * Clear Creek is heavily used during the warmer months by Redding area residents for swimming, picnicking, tubing, sunning, hiking, and gold panning. Important locations for these activities are: Whiskeytown NRA, Placer Street bridge, Clear Creek Road bridge, and in the McCormick-Saeltzer Dam area. Trout fishing is popular along its accessible portions. Tubing takes place throughout the corridor. Whitewater kayaking, has occurred in the upper two segments, with difficulty ratings ranging from Class II to IV (refer to Table A-1). There are some non-navigable drops between Stoney Gulch and Placer Street bridge. Below Clear Creek Road bridge, the water is probably a I to II rating, except in the short canyon below Saeltzer Dam. * An unspoiled primitive type of outdoor experience can be obtained by hiking or floating along many of the portions of the creek between Whiskeytown Dam down to the Clear Creek Road bridge. In their Final Master Plan (July, 1976), the NPS has designated most of the Whiskeytown segment, and * that portion of the canyon segment above Stony Gulch, as an "outstanding natural area". The remainder of the canyon segment is of the same general character as the NPS designated area. The NPS management emphasis and designated use for this area is for "public appreciation and interpretation of geological or ecological features possessing unusual intrinsic value or uniqueness". A hiking trail is planned to be built along this unique creek, with legislative authorization given to the NPS to acquire land and easements down to the Placer Street bridge.

Vegetation. Riparian vegetation is common along most of the creek, but has been seriously disturbed by placer mining in the valley portion of the segment. The adjoining canyon highlands are covered with digger pine, manzanita, and chamise.

Scenic Quality. * That portion of the creek above Clear Creek Road bridge warrants an "A" in scenic quality. Below this bridge, the river is heavily impacted by historic placer gold mining and more recent sand and gravel excavation. The average scenic quality rating there is "B" or "C".

Water Quality. Water quality is expected to be good to excellent in the upper reaches and good in the lower valley.

Wildlife. The wildlife is typical of northern Sacramento Valley foothills and includes: deer, bear, ringtail cats, and wild turkey.

Socio-Economic Uses. Clear Creek valley is being heavily used for industrial purposes, with gravel extraction and processing being the predominate use. Residential development is scattered within the corridor. Recreation use is very important for the local residents and nationally as part of the NRA. Roads and utility lines cross the study corridor in many places. Small scale placer gold mining in the creek and on adjacent dry land deposits, occurs on a routine basis. Clear Creek valley also receives a large amount of illegal activities such as trash dumping, camping violations, and general rowdyism.

Eligibility Conclusion: Canyon segment - ELIGIBLE, Valley Segment - NOT ELIGIBLE

CLASSIFICATION

Clear Creek is SCENIC throughout the eligible segment. There are no impoundments, shoreline developments, railroads or parallelling roads, and few shoreline developments. At the Placer Road crossing there is a high span bridge, an abandoned low road bridge upstream and a pipeline crossing immediately downstream.

COTTONWOOD CREEK

Cottonwood Creek is the major tributary to the Sacramento River in the Redding Resource Area. It flows easterly along the Shasta-Tehama County boundary and has three forks, the North, Middle, and South Forks. Cottonwood Creek proper starts at the confluence of the North and Middle Forks and continues downstream past Cottonwood, California to its mouth on the Sacramento River. The study corridor consists of the segment of the creek below the I-5 bridge (MAP A-4).

Total Miles/BLM Miles. 5.4/0.4

Free Flowing Discussion. There are no known impoundments. During the summer and fall, a major sand and gravel mine diverts the low stream flow with temporary dikes, out of the mining area in the creek bottom.

Cultural/Historic Values. There are no known significant values.

Fisheries. Cottonwood Creek is an important supplier of spawning gravels to the Sacramento River, and is itself, used for anadromous fish spawning.

Physiography/Geology. Cottonwood Creek meanders through the low rolling hills of the Sacramento Valley, depositing large gravel bars along its entire length. These hills are formed by Quaternary and Recent in age sediments deposited by past alluvial action.

Recreation. Fisheries, swimming, tubing(?), canoeing. The creek is probably a Class I to II (refer to Table A-1) in paddling difficulty.

Vegetation. Cottonwood Creek contains varying amounts of riparian vegetation depending on the amount of modification by man. The BLM parcel contains a well developed cottonwood forest and a small population of the Federal Candidate plant species, Cryptantha crinita, in the flood plain. The adjacent uplands are brush and grasslands.

Scenic Quality. The scenic quality is estimated to be "B" to "C".

Water Quality. The water quality is expected to be good to fair.

Wildlife. Wildlife species along Cottonwood Creek will be those primarily associated with annual grasslands in the lower reaches and oak woodlands and chaparral in the upper reaches. These species include black-tailed deer, mountain lion, bobcat, coyote, wild turkey, valley and mountain quail. Bald eagles use the stream during the winter and spring months for food gathering purposes.

Socio-Economic Uses. The creek in the immediate vicinity of Cottonwood is extensively used for sand and gravel mining and as a crossing point for many transportation routes and utilities. Upstream, gravel mining has occurred on an intermittent basis. Fisheries production occurs in the creek and through downstream migration of spawning-sized gravels into the Sacramento River.

Eligibility conclusion: NOT ELIGIBLE

NORTH FORK COTTONWOOD CREEK

North Fork Cottonwood Creek occurs in southwestern Shasta County, 10 to 20 miles west of Anderson, California. It flows in a generally southeasterly direction and comprises one of three forks of Cottonwood Creek, a major tributary of the Sacramento River. The study corridor is defined as that portion of North Fork Cottonwood Creek within the ten mile long upper canyon above Platina Road.

All BLM administered lands occur within this portion of the creek (MAP 3-5a (in packet) in the upper canyon.

Total Miles/BLM Miles. 10.1 / 2.4;

Free Flowing Discussion. A substantial diversion dam, one mile below Misselbeck Dam, diverts water into an underground aqueduct for irrigation purposes in the Igo-Ono area. One low-head dam is known to exist approximately one mile upstream of Lower Gas Point Road. There are no other major impoundments on the study section and even at low summer flows, the creek is free flowing.

Cultural/Historic Values. One reported prehistoric village site is located on BLM public land. There are scattered mining features, primarily placer tailings in the lower segment. Some underground mining and related features occur in the upper canyon on BLM public land.
Fisheries. North Fork Cottonwood Creek contains a native trout and anadromous fishery and supplies gravels for spawning downstream.

Physiography/Geology. The North Fork flows out of the Klamath Mountains into the Sacramento Valley. Upstream of the Platina road, the canyon is deep and steep. Cataracts and large rapids are common in this upper segment. Between Platina and Lower Gas Point roads, the canyon is more open and the creek bottom is ledgey to bouldery in character. Below Lower Gas Point Road, the river meanders through a wide river channel amidst coarse placer tailings. Jerusalem Creek is a major tributary of the North Fork. The rocks exposed in the Klamath Mountains include granites, serpentine, and schist. Entering the Sacramento Valley, Cretaceous in age sandstones, shales, and mudstones are exposed along with more recent alluvial type deposits. Vertical sandstone dikes within the Cretaceous rocks crop out within the river canyon. Reportedly the best Ammonite fossils in North America can be found in the rock cut by

the Cottonwood Creek drainage in the middle and lower segments.

Recreation. * Fishing is the main recreational use of the creek. Some summer swimming and tubing also occurs. Very limited whitewater kayaking has occurred in the upper canyon because of its steep gradient. This segment probably warrants a class IV to VI difficulty rating. * It is an unspoiled primitive type of setting in the bottom of this canyon, suitable for rugged "backcountry" hiking and expert kayaking. The middle canyon is floated more often, in the winter and spring, and is rated as Class III to IV (refer to Table A-1). The lower portion is relatively easy and rates a Class I to II.

Vegetation. Dense riparian vegetation in portions of the upper canyon and along scattered segments in the lowlands. Oak-conifer-brushy woodlands are in the upper canyon area, while brushland, scattered oaks, and grassland predominate in the Sacramento Valley.

Scenic Quality. * The upper canyon has scenic quality rating of "A", the middle segment an estimated "A" or "B", and the lower segment a probably "B" rating.

Water Quality. The water quality is probably good. Misselbeck Dam acts as trap for the highly erosive decomposed granite soils upstream.

Wildlife. Wildlife species along North Fork Cottonwood Creek will be those primarily associated with annual grasslands in the lower reaches and oak woodlands and chaparral in the upper reaches. These species include black-tailed deer, mountain lion, bobcat, coyote, wild turkey, valley and mountain quail. Bald eagles and other raptors use the lower part of the stream for food gathering purposes.

Socio-Economic Uses. The study corridor contains water diversions for irrigation purposes, ranching in the middle and lower sections, fishery production facilities, minimal mining, and scattered residential dwellings.

Eligibility Conclusion: ELIGIBLE

CLASSIFICATION

The segment of North Fork Cottonwood Creek between Misslebeck Dam and Platina Highway Bridge is classified as SCENIC. This segment includes one minor low-head diversion dam, and a few scattered houses, however, the corridor has an essentially undeveloped shoreline accessible only in a few places by roads. The overall condition of the segment is largely primitive and undeveloped.

MIDDLE FORK COTTONWOOD CREEK

Middle Fork Cottonwood Creek flows east out of the lowermost portion of the Klamath Mountains down into the Sacramento Valley due east of Anderson, California. The 30.4 mile long Middle Fork can be divided into three segments: the uppermost, from its source down to the Highway 36 bridge; the middle segment from the Highway 36 bridge down to the Platina Highway bridge; and the lowermost section, from the Platina Highway down to the confluence with the North Fork Cottonwood Creek. Beegum Creek is the major tributary to the Middle Fork with the confluence in the lower segment. The upper segment is primarily public land administered by the U.S. Forest Service, and the lowermost is exclusively in private ownership. Forty-four percent of the middle segment is under BLM administration. This middle segment comprises the study corridor (MAP 3-10a in packet).

Total Miles/BLM Miles. 12.4 / 5.5

Free Flowing Discussion. The Arbuckle Mountain 400 kilowatts hydroelectric facility, with associated dam, is located in the middle segment (T.30 N., R.9 W., Sec. 33) on private lands. Approximately 1/4 mile of the creek can have most of its water diverted from it during low summer and fall flows. The creek was not dewatered when this facility was observed from the air on January 24, 1990. There are no other known major diversions or impoundments.

Cultural/Historic Values. There are no known important cultural or historic values.

Fisheries. The Middle Fork Cottonwood provides spawning gravels for downstream areas and fish habitat along its length.

Physiography/Geology. With the exception of the Platina area, the upper and middle segments are in steep narrow mountainous gorges with steep rock creek gradients. In the area around Platina, the creek drainage opens up into a grass covered valley. The lower segment opens up into the Sacramento Valley where the creek meanders through foothills with a relatively gentle gradient. The upper and middle segments are primarily in Paleozoic age metasedimentary rocks of the Klamath

Mountains Geologic Province. The lower segment enters the Sacramento Valley and cuts into Cretaceous age sedimentary rocks, primarily sandstones and shales. This lower portion probably contains rare sandstone dikes exposed within the low canyon walls of the stream channel. The Cretaceous age sedimentary rocks also contain deposits of Ammonite fossils, described as "the best in North America".

Recreation. * Fishing and floating are the primary forms of recreation. The lowermost portion of the upper segment is probably floatable. The middle segment is probably a Class IV to VI (refer to Table A-1) whitewater float, with at least one portage. It is unknown if this stretch of the creek has ever been floated. The lower segment is a Class II to III float down to Cottonwood Creek. * Much of the middle segment is secluded, undeveloped, physically demanding, and inaccessible by roads or trails, which gives it a primitive setting and excellent opportunities for primitive types of outdoor experiences.

Vegetation. Vegetation in the upper two segments is primarily coniferous forest grading down in elevation into oak-conifer forest. Below the Platina Road bridge, digger pine-chaparral and grasslands predominate. Riparian vegetation overhangs the creek in places along its length.

Scenic Quality. * While there are no formal Visual Resource Management classifications, * scenic quality would probably be an "A" in most of the BLM portions and "B" in the lower remaining portions. The residential Platina area probably has a "B" rating.

Water Quality. Probably excellent in the upper two segments and good in the lower segment.

Wildlife. Wildlife species found along this section will be those associated with brushland and annual grassland ecosystems, in addition to the riparian vegetation along the stream. These species include wild turkey, valley and mountain quail, common mergansers, wood ducks, coyote, bobcat, grey fox, mountain lion, beaver, mink and black bear. Bald eagles and other raptors have been seen foraging along the lower segment.

Socio-Economic Uses. Fisheries, recreation. Grazing in the lower segment, hydroelectric production in the middle segment, timber production in the upper segment.

Eligibility Conclusion: ELIGIBLE

CLASSIFICATION

The segment of Middle Fork Cottonwood Creek between the Trinity National Forest boundary and Little Bear Gulch is classified as RECREATIONAL since the entire segment is paralleled by roads, contains a hydroelectric facility and the developed area of Platina. The segment between Little Bear Gulch and the downstream Platina Road crossing near Hundred Dollar Gulch is classified as WILD because it is primitive in character and essentially inaccessible to motorized vehicles.

SOUTH FORK COTTONWOOD CREEK

The South Fork of Cottonwood Creek flows east out of the Yolla Bolly-Middle Eel Wilderness in Tehama County and then northeastward to its confluence with Cottonwood Creek 2 1/2 miles west of Cottonwood, California. The 60.2 mile long South Fork can be divided into three segments: the upper, middle and lower segments. The upper segment is entirely within the Mendocino National Forest. The middle segment starts at the USFS boundary and proceeds downstream to the Cold Fork confluence. The lower segment starts at the Cold Fork and goes downstream to the confluence with Cottonwood Creek. All BLM administered public lands occur within the middle segment. The portion of this segment above Cooks Flat comprises the study corridor (MAP 3-10a in packet).

Total Miles/BLM Miles. 17.4 / 3.1

Free Flowing Discussion. One small dam was seen by air in the middle segment. Its exact location is unknown. Its effects on the free flowing character was observed to be minimal. No other impoundments or major diversions are known to exist.

Cultural/Historic Values. There are no known significant values.

Fisheries. Some spawning of anadromous fish occurs in the corridor. Gravel migration provides for spawning downstream.

Physiography/Geology. * The upper and much of the middle segment consist of a very rugged, narrow, sinuous, steep-walled canyon. The creek bottom is

characterized as boulder strewn, with innumerable cascading rapids and small waterfalls. The lower segment cuts through the rolling hills and gentle terrain of the Sacramento Valley. The upper segment is located within the Coast Ranges Geologic province which locally contains the Franciscan sandstone, shale and blueschist of Cretaceous and Jurassic age. Further to the east, the creek passes through the Coast Range Thrust Fault and into the Cretaceous age sedimentary rocks of the Sacramento Valley. The middle segment contains the type area for rare sandstone dikes and "important" (USGS, Menlo Park) Cretaceous in age invertebrates and Ammonoids in T. 26 N., R. 8 W., Sec. 12. * This segment also contains a spectacular display of the steeply dipping Cretaceous sedimentary rock layers, paralleling the creek bed in several places.

Recreation. * Fishing, tubing, limited canoeing and whitewater kayaking in the middle and lower sections. At least one major boulder jam would impede whitewater boating in the middle section. * Much of the middle segment is secluded, undeveloped, physically demanding, and inaccessible by roads or trails, which gives it a primitive setting and excellent opportunities for primitive types of outdoor experiences.

Vegetation. Riparian vegetation of variable density exists along most of the creek. Oak-conifer-brushy woodlands are in the upper canyon area, while brushland, scattered oaks, and grassland predominate in the Sacramento Valley.

Scenic Quality. * While there has been no formal rating established, * the scenic quality of the US Forest Service portion and the upper 2/3rds of the middle (BLM) portion is estimated to be an "A". The remaining lower portions probably warrant a "B" rating.

Water Quality. Probably good or excellent.

Wildlife. Wildlife species found along this corridor will be those associated with brushland and annual grassland ecosystems, in addition to the riparian vegetation along the stream. These species include wild turkey, valley and mountain quail, common mergansers, wood ducks, coyote, bobcat, grey fox, mountain lion, beaver, mink, fisher, porcupine, and black bear. Bald eagles and other raptors may use the lower segment for food foraging.

Socio-Economic Uses. Some gravel and placer gold mining, fisheries, recreation, cattle grazing, hydroelectricity(?)

Eligibility Conclusion: ELIGIBLE

CLASSIFICATION

The segment of South Fork Cottonwood Creek between the National Forest boundary and Maple Creek is classified as WILD since it possesses an essentially primitive character and undeveloped shoreline inaccessible except by trails. The segment between Maple Creek and Cooks Flat is classified as SCENIC since the shoreline is largely primitive and undeveloped with limited vehicle access.

DEER CREEK

Deer Ceek flows southwesterly out of Lassen Volcanic National Park into the Sacramento River. The study corridor is defined as from the western edge of the Ishi Wilderness, 8.2 miles down to the Deer Ceek Irrigation Ditch in T. 25 N., R. 1 W., Section 23. The majority of Deer Ceek is managed by the Lassen National Forest. They have determined that Deer Ceek, above this study corridor, is eligible for inclusion in the NWSRS. One unsurveyed parcel of BLM administered public land in T.25 N., R. 1 E., Section 18 may touch the creek in three places (MAP 3-8b in packet). BLM has proposed acquisition of additional lands within the study corridor.

Miles/BLM Miles. 8.2 / 0.1

Free Flowing Discussion. There are no diversions or impoundments on the study segment.

Cultural/Historic Values. Nationally important site complex of camps and caves of the Yahi Indian tribe and their predecessors, of which Ishi was the last known member.

Fisheries. Important for salmon, steelhead and other native fisheries.

Physiography/Geology. * Flowing out of the Cascade Range, the creek has cut its way into Cenozoic volcanic rocks and sediments of volcanic origin. The creek segment descends though a long series of rapids in a deep, rough canyon down to the Sacramento River. There are spectacular columnar basalt cliffs and eroded volcanic mud flows which can appear as fantastic castle-like spires.

Recreation. * This lower corridor provides good fishing and swimming opportunities, but are limited due to lack of public access. Whitewater kayaking occurs on

this segment, starting at either Potato Patch Campground or Ponderosa Way and taking out at the Leininger Road bridge. * This is a multi-day unspoiled primitive type of run, with a technical difficulty rating of Class IV to V (refer to Table A-I), with some portaging required. Floating this creek has been described in a California boating guidebook as: "The wilderness journey through the Deer Ceek Canyon is one of the finest in California. Rarely can one experience a river of such high quality for such a long distance".

Vegetation. Vegetation types include mixed conifer type and the Pacific ponderosa pine type of the Cascade Range at the higher elevations, and the oak woodland and dense chaparral at the lower elevations.

Scenic Quality. * The scenic quality of Deer Ceek is evaluated as an "A".

Water Quality. Good to excellent.

Wildlife. Deer creek provides excellent nesting areas for several species of raptors, including: peregrine falcon, prairie falcons, red tailed hawks, turkey vulture and golden eagles. Other wildlife species typical of northern Sierra streams, including bobcat, mountain lion, black bear, blacktailed deer, mink and raccoon.

Socio-Economic Uses. Recreation and some cattle grazing. A twin steel tower electrical transmission line crosses this study corridor.

Eligibility Conclusion: ELIGIBLE

CLASSIFICATION

Deer Ceek is WILD throughout the study corridor because the water quality is good, there are no impoundments and there are no access roads or shoreline developments. A powerline crosses the creek at one point, however, it does not noticeably affect the river environment.

MILL CREEK

Mill Creek flows out of Lassen Volcanic National Park in a southwesterly direction to its confluence with the Sacramento River. The study corridor is defined as from the Lassen National Forest boundary down to gaging station above the power line in T. 25 N, R. 1 W. Section 6 (MAP 3-8b in packet). Mill Creek, above this study corridor, has been determined to be eligible by the Lassen National Forest.

Total Miles/BLM Miles. 14.0 / 0.3

Free Flowing Discussion. There are no known water diversions or impoundments on the study segment. Mill Creek is known for its dependable year-round flows.

Cultural/Historic Values. * Mill Creek has a nationally important site complex of village, camps, petroglyphs, and caves related to the Yahi Indian tribe and their predecessors, of which Ishi was the last member.

Fisheries. Spring run Chinook salmon, steelhead, rainbow and brown trout occur within the study segment.

Physiography/Geology. * Flowing out of the Cascade Range, the creek has cut its way into Cenozoic volcanic rocks and sediments of volcanic origin. The study corridor descends though a long series of rapids in a deep, rough canyon down to the Sacramento River. There are spectacular gorges with caves in the walls in the lower portions of the creek. Many small waterfalls and pools are part of the stream channel.

Recreation. Some fishing and camping occur in the study corridor, but are limited by lack of public access. Whitewater boating is limited and challenging because of the Class V+ (refer to Table A-I) difficulty of creek and the lack of access points.

Vegetation. The primarily vegetation types are oak grasslands, chaparral with digger pines and a thin riparian zone bordering the creek.

Scenic Quality. * A scenic quality rating of "A" has been determined for Mill Creek.

Water Quality. Good to excellent.

Wildlife. Mill creek provides excellent nesting areas for several species of raptors, including prairie falcons, red tailed hawks, turkey vultures and golden eagles. Other wildlife species are typical of northern Sierra streams including bobcat, bear, mountain lion, blacktailed deer, mink and raccoon.

Socio-Economic Uses. Recreation, cattle grazing. A twin steel tower electrical transmission line crosses this study corridor.

Eligibility Conclusion: ELIGIBLE

CLASSIFICATION

Mill Creek is WILD throughout the study corridor because there are no impoundments, shoreline developments or access roads and the water quality is good. A powerline crosses the creek at one point, however, it does not noticeably affect the river environment.

PAYNES CREEK

Paynes Creek is a small westerly flowing tributary of the Sacramento River located in Tehama County, six miles northeast of Red Bluff, California. The study corridor starts at the mouth of the Sacramento River and proceeds upstream to the natural gas pipeline near State Highway 36, two miles southwest of Dales, California (MAP 3-6b in packet).

Total Miles/BLM Miles. 6.7 / 4.2

Free Flowing Discussion. The study corridor is free flowing with one minor water diversion on public land.

Cultural/Historic Values. Significant Indian village sites occur at the confluence with the Sacramento River and on public land further upstream. Numbers of hunting blinds and lithic workshops are found along the canyon rim.

Fisheries. Some spawning of anadromous fish and a native trout population occurs in the study segment.

Physiography/Geology. Paynes Creek is in a small narrow walled canyon, which gradually opens up towards its upper end. The geology of this corridor consists of Cenozoic in age volcanic rock and volcanically derived sediments which have been emplaced in the Sacramento Valley.

Recreation. Fishing and hunting.

Vegetation. * Extensive dense riparian growth exists along four to five miles of stream bottom. This constitutes an key remnant of critical habitat for wildlife species in the Sacramento Valley that are dependant upon this dense cover. Scattered oak woodland, chaparral, and grassland cover the adjoining highlands.

Scenic Quality. * This creek has a scenic quality rating of "A".

Water Quality. Water quality is probably good.

Wildlife. Paynes Creek contains important wildlife habitat for the following species that are also found along the Sacramento River: osprey, wintering bald eagles, red tailed hawk, ferruginous hawk, valley quail, wild turkey, Canada geese, wood ducks, grey squirrel, ring tailed cat, river otter, beaver, blacktail deer, coyote, bobcat, and mountain lion.

Socio-Economic Uses. Fisheries production, recreation and cattle grazing.

Eligibility Conclusion: ELIGIBLE

CLASSIFICATION

Paynes Creek is SCENIC throughout the eligible segment. There is one small diversion which does not appreciably affect the free-flowing nature of the creek. There is a paralleling trail and a short length of unimproved road. The creek is crossed in two locations by powerlines, however, these are screened from the creek by dense riparian overstory and are substantially unnoticeable.

SACRAMENTO RIVER

The Sacramento River is the major drainage of the Sacramento Valley and eastern Klamath Mountains. Flowing in a southerly direction, the study corridor starts at Balls Ferry Bridge in Shasta County and ends at the gaging station below Sevenmile Creek in Tehama County. BLM administered public lands are concentrated between Jellys Ferry and the mouth of Paynes Creek (MAP 3-6b in packet).

Total Miles/BLM Miles. 25.0 / 7.1

Free Flowing Discussion. This portion of the river is entirely free flowing in its character, with no impoundments. Upstream, the river is heavily regulated by Shasta and Keswick dams, which control winter flooding and provide for agricultural water storage.

Cultural/Historic Values. * There are at least fourteen known aboriginal villages along this stretch of the river. These sites tend to be pristine in condition and probably offer outstanding opportunities for research into the prehistoric cultures in this region. There is a possibility of sacred values to local Native Americans.

Fisheries. * As the primary drainage of the region, the Sacramento supports a very high value fishery resource of salmon, steelhead, and trout. It is nationally sig-

nificant for the spawning of anadromous fish, especially Chinook salmon.

Physiography/Geology. The Sacramento River meanders through the Sacramento Valley cutting into the Cenozoic in age sedimentary and volcanic rocks which comprise the valley's geology. River sediments are constantly being deposited and eroded as the river makes changes to its course or flow. Gravel bars in and along the river are common, as are rocky sections.

Recreation. * The river is heavily used for boat and shoreline fishing, leisurely floating in rafts and canoes, limited swimming, sightseeing, and hunting. There are developed recreation sites along this corridor for boat access, camping, target shooting, and picnicking. The river difficulty rating for this segment is mostly Class I, with Class II (refer to Table A-1) rapids at Chinese Rapids.

Vegetation. * Contains areas of rare Great Valley, Valley Oak Riparian Forest (old growth) along with abundant immature riparian growth along the river's edge. Approximately 95 per cent of the mature riparian forest type along the Sacramento River, between Redding and the Delta, has been destroyed by human modifications. Several remnant stands of Great Valley Oak Riparian Forest are found in the upper stretches of this river.

Scenic Quality. * Most of the river has a scenic quality rating of "A".

Water Quality. The water quality is good.

Wildlife. Wildlife species that are found along this stretch of river include osprey, wintering bald eagles, red tailed hawk, ferruginous hawk, Valley quail, wild turkey, Canada geese, wood ducks, grey squirrel, ring tailed cat, river otter, beaver, blacktail deer, coyote, bobcat, and mountain lion.

Socio-Economic Uses. * The Sacramento River is very important for the entire state of California. * It supplies water for primarily agricultural uses in central California, and also for local domestic needs. Its spawning habitat supplies a significant portion of the anadromous fisheries off the coast of California. Upstream manufacturing and waste treatment facilities use its waters for routine and emergency discharge externalizing. Its recreational uses bring much needed revenues into the region. Some alluvial gravel extraction occurs in the upper portion of the segment on private lands.

Eligibility Conclusion: ELIGIBLE

CLASSIFICATION

The eligible segment of the Sacramento River is divided into four sections. The section from Balls Ferry downstream to 1/2 mile below the Jellys Ferry Bridge is RECREATIONAL. There are no impoundments, however, there are scattered shoreline developments including boat docks, resorts, residences, pumping stations and utility crossings, as well as recreation facilities and a bridge at Jellys Ferry Bridge to 1/2 mile upstream of the Bend Bridge. This segment is therefore SCENIC. There are no impoundments, paralleling roads or other shoreline developments. Parts of both sides of the river in this section are used for agricultural purposes, including field crops and livestock grazing. A powerline crosses the river at one point, however, it does not substantially affect the river environment. The section from 1/2 mile upstream of the Bend Bridge to the mouth of Paynes Creek is RECREATIONAL. There are numerous residences and one commercial dock, as well as a boat ramp along the shoreline and a large bridge spans the river at Bend. The section from the mouth of Paynes Creek to the gaging station downstream from the mouth of Sevenmile Creek (the Iron Canyon section) is WILD. There are no impoundments or diversions. There is no shoreline development. There are no access roads and the character of this reach is essentially primitive. Water quality is good along the entire segment.

SHASTA RIVER

The Shasta River is located North of Yreka, California in Siskiyou County, with headwaters in the Shasta Valley. The study corridor is defined as that northerly flowing portion from the State Highway 263 bridge, downstream to the confluence with the Klamath River. The upper portion is not considered because of the lack of any public land. The Highway 263 bridge marks a distinct physical change in the character of the Shasta River. Upstream from this point the river is slow moving and meandering through the relatively flat terrain of the Shasta Valley. Within the study corridor the river becomes deeply entrenched in a narrow canyon within the Klamath Mountains (MAP 3-2b in packet).

Total Miles/BLM Miles. 7.0 / 3.3

Free Flowing Discussion. A small low-head diversion dam is located just downstream from the Highway 263 bridge. A small percentage of the river's flow is diverted

into a ditch along the east bank to a small hydroelectric facility downstream. Near the mouth of the river is a small weir across the channel. California Department of Fish and Game has installed and maintains a series of boulder weirs across the river which impound introduced spawning gravels. These developments do not detract from the overall free flowing nature of the river.

Cultural/Historic Values. Fools Paradise housepit (Shasta Indian) village and a Euro-American mining camp are found above the river. There are ethnographic village sites in close proximity to the public lands along the river and possible village sites on public land. Possible religious/mythological importance of river to contemporary Native Americans.

Fisheries. * The Shasta River has been described by the California Department of Fish and Game as being the single most important Chinook spawning tributary in the Klamath River drainage. The public land portions of this corridor contain a significant percentage of this spawning.

Physiography/Geology. The river has cut a deep canyon through the pre-Cenozoic metasedimentary and metavolcanic rocks of the Klamath Mountains. The canyon is relatively narrow, with State Highway 263 and its associated bridges restricted to benches cut into the canyon wall 100 feet above the river.

Recreation. The river corridor is used primarily for fishing and sightseeing from Highway 263. Placer gold dredging and panning occurs during the warm summer months. Whitewater kayak use is light, with a river difficulty rating of Class II to IV (refer to Table A-1).

Vegetation. Limited rainfall and rocky soils limit the vegetation in the uplands adjacent to the river to brushlands with scattered conifers and oaks. Riparian vegetation along the river's edge is light to moderate.

Scenic Quality. * This river segment is of class "A" scenic quality.

Water quality. The water quality is adequate for Chinook spawning. Since the Shasta River drains agricultural lands above the study corridor, the water is turbid and high in nutrients. Domestic septic effluent can be smelled along certain portions of the study segment near residences.

Wildlife. The Shasta River canyon receives considerable water fowl use, including mallard, wood duck, common merganser, cinnamon teal and Canada geese. Other wildlife species using the river area are mountain lion, bobcat, mink, great blue heron, and mountain quail.

Socio-Economic Uses. The river is important for the spawning of Chinook salmon which are an important recreational and commercial fishery resource. A minimal amount of placer gold mining occurs in and along the Shasta River. Human habitation along this river corridor is variable, with houses tending to be clustered at a few locations. State Highway 263 follows the river canyon along its route.

Eligibility Conclusion: ELIGIBLE

CLASSIFICATION

The eligible segment of the Shasta River is RECREATIONAL. It is accessible in several locations by roads, much of its length is paralleled by roads, numerous fish habitat improvements are also diversions and highway bridges span several sections of this river segment. There are also several residential developments within the river area.

TABLE A-1

RIVER DIFFICULTY RATING SCALE

CLASS I EASY

Moving water with a few riffles and small waves. Few or no obstructions.

CLASS II EASY TO MEDIUM

Rapids with waves up to three feet, and wide clear channels. Some maneuvering is required around obvious obstacles.

CLASS III MEDIUM TO MODERATELY DIFFICULT

Rapids with high irregular waves, narrow channels, rocks and holes. Often requires complex maneuvering.

CLASS IV DIFFICULT TO VERY DIFFICULT

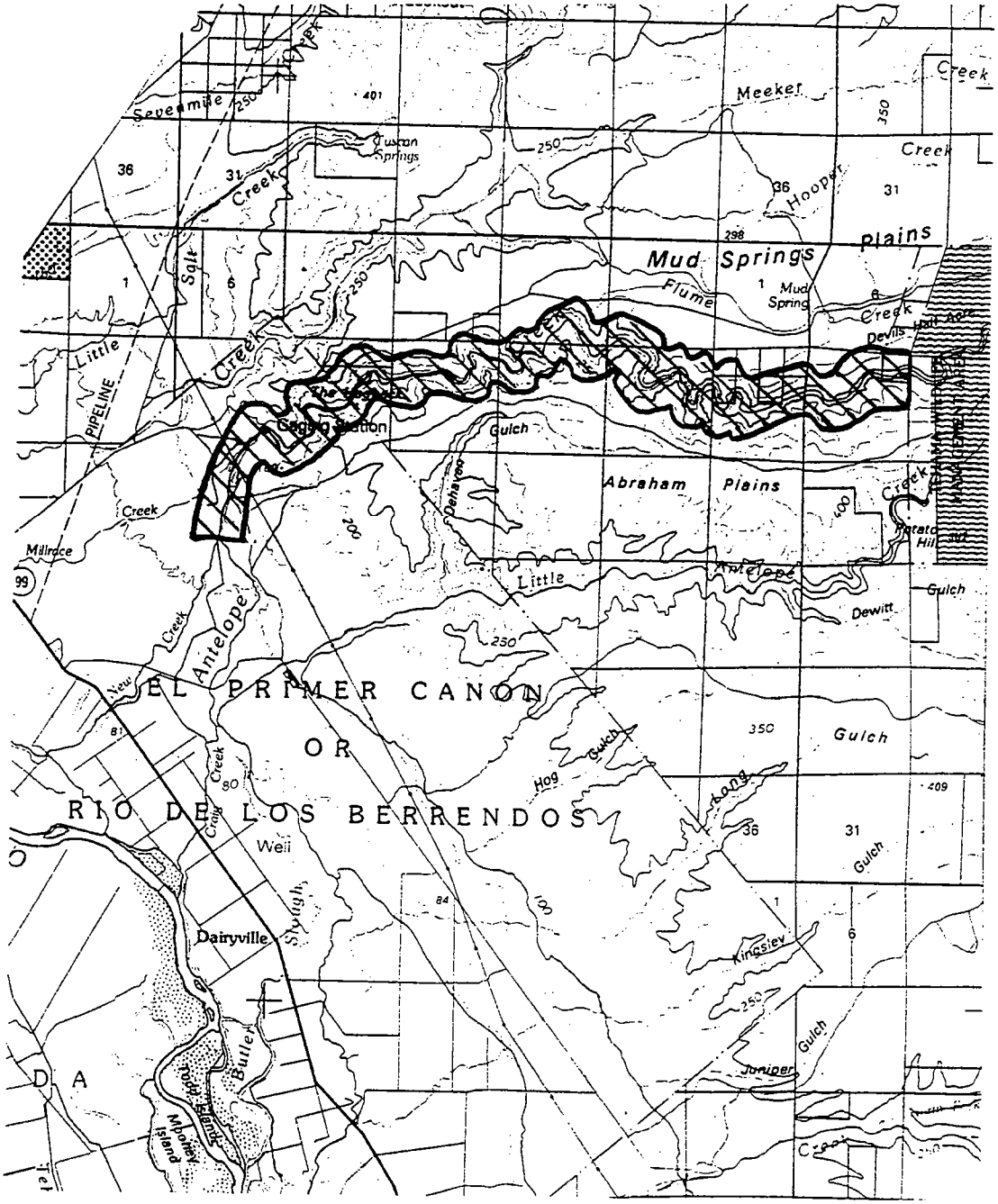
Long, turbulent rapids with powerful waves and holes. Many obstacles requiring precise, expert maneuvering. Scouting from shore is often necessary.

CLASS V EXTREMELY DIFFICULT

Long, technical, and very violent rapids with highly congested routes which nearly always must be scouted from shore. Dangerous drops, unstable eddies, irregular currents, and horrendous holes are often encountered. Requires experience, self-confidence, and good physical condition.

CLASS VI NEARLY IMPOSSIBLE AND EXTREMELY DANGEROUS

Difficulties of Class V carried to the extreme of navigability. Mishap could be hazardous to life. For teams of experts only, after close study and with all precautions taken. Generally considered unrunnable for commercial purposes.

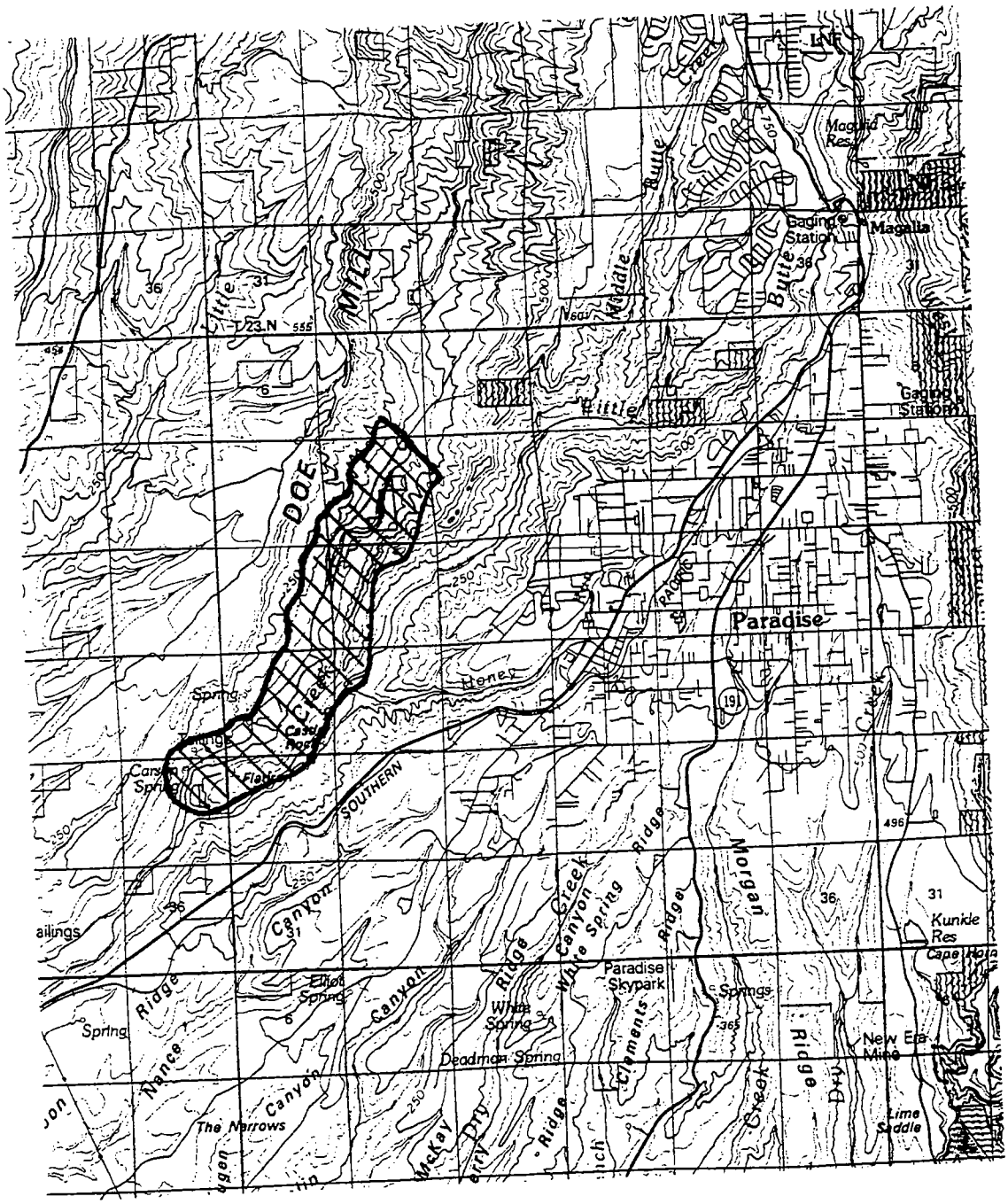


SCALE 1:100,000

N

Antelope Creek segment determined not eligible

MAP A-1

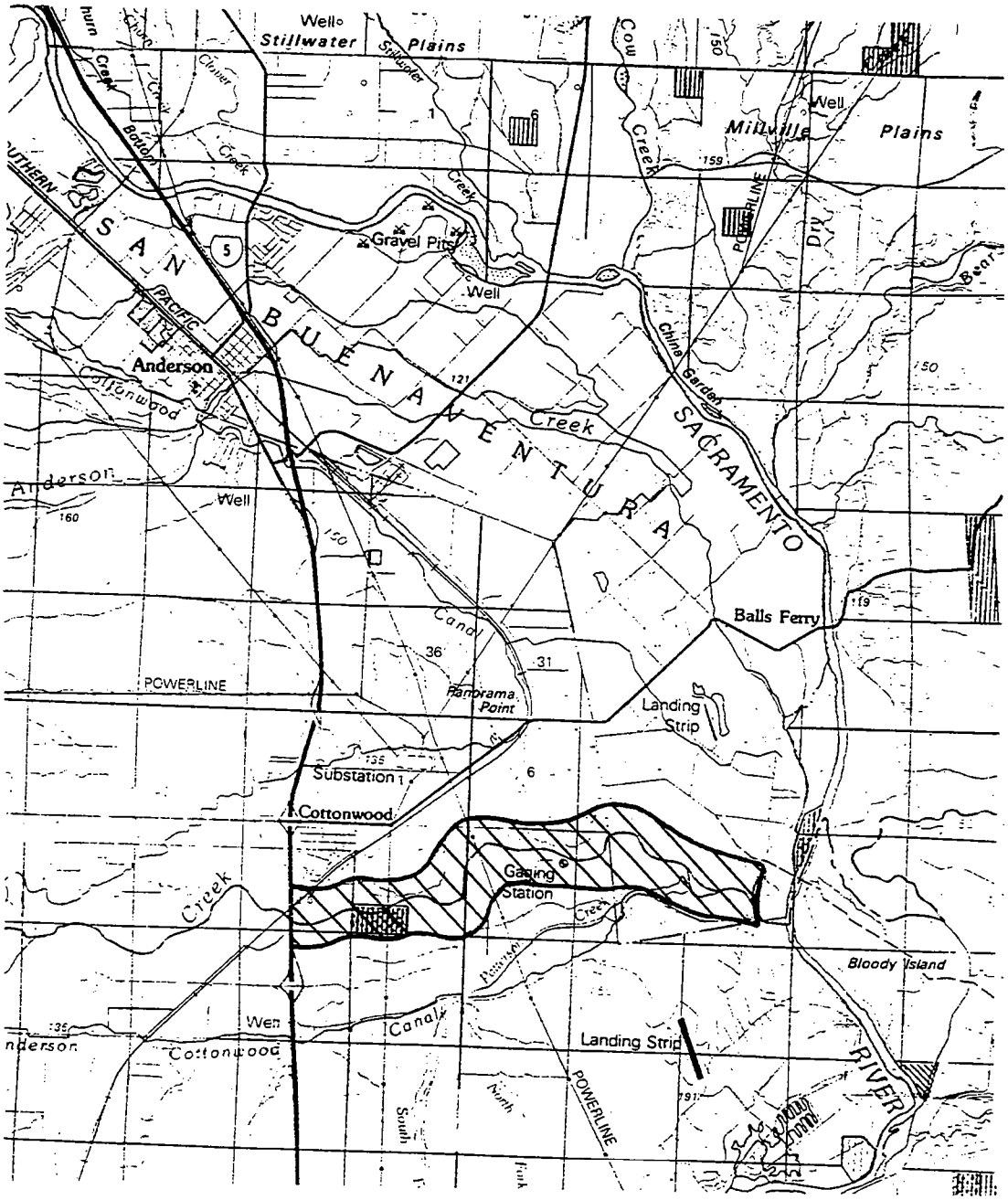


SCALE 1:100,000

N

Butte Creek segment determined not eligible

MAP A-2

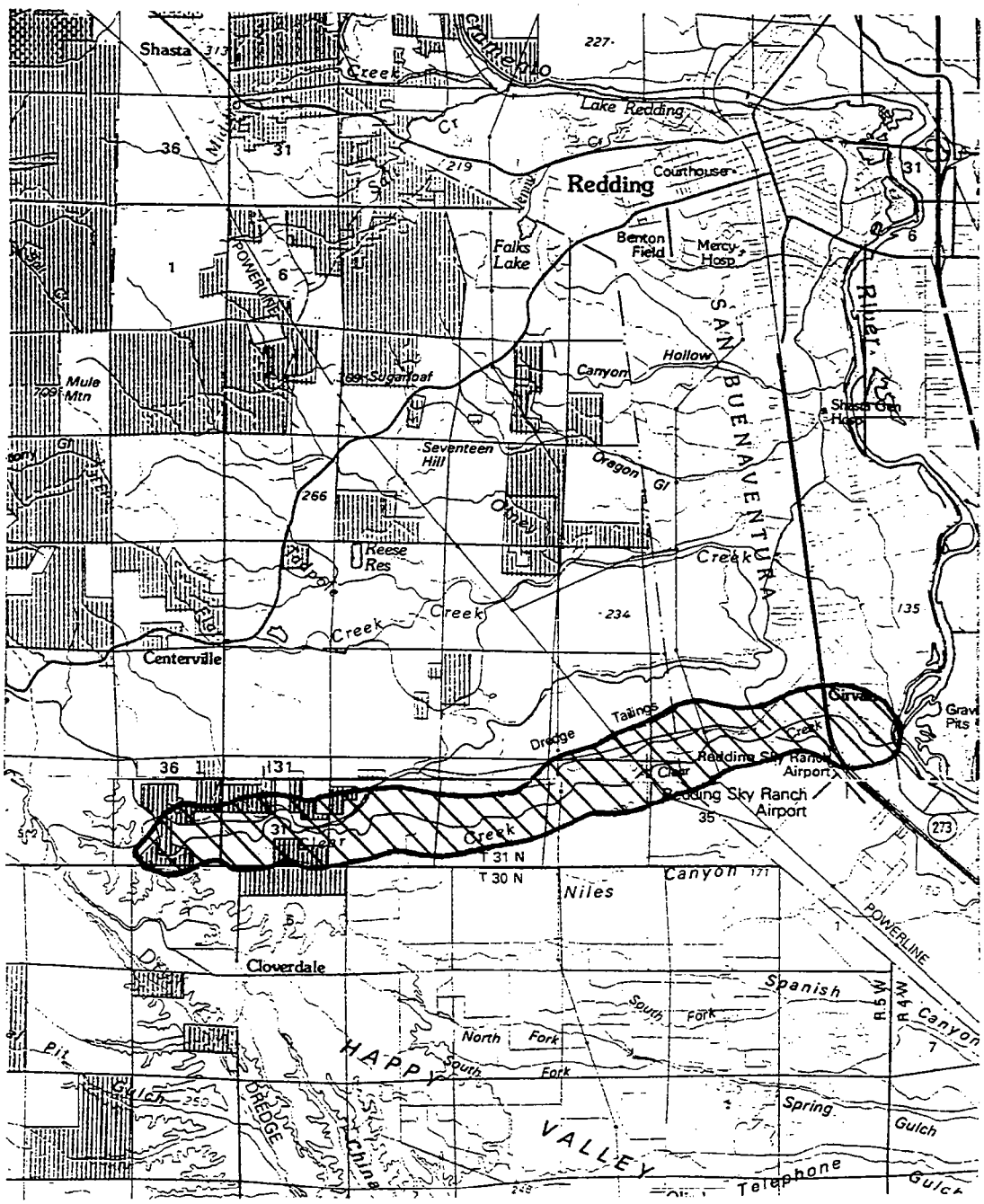


SCALE 1:100,000

N

Clear Creek segment determined not eligible

MAP A-3



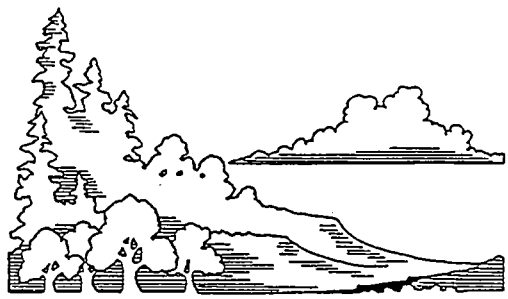
SCALE 1:100,000

N

Cottonwood Creek segment determined not eligible

MAP A-4

APPENDIX B
DESIRED PLANT COMMUNITY FOR THE SACRAMENTO RIVER MANAGEMENT AREA



APPENDIX B

DESIRED PLANT COMMUNITY DEFINITIONS

FOR THE

SACRAMENTO RIVER AREA

The Sacramento River Area is comprised of an assortment of natural communities which are being grouped into four major components - the Blue Oak Woodlands, Annual Grasslands, Stream and River Riparian, and the Wetland and Vernal Pool. The goal of the Desired Plant Community (DPC) for the whole area is to retain the current diversity of these communities while improving and maintaining wildlife habitats. Prescribed burning, modified fire supression and vegetative manipulation would be used to enhance these natural cummunities. Existing native vegetation levels would be maintained throughout this DPC, with some areas of enhancement and reestablishment.

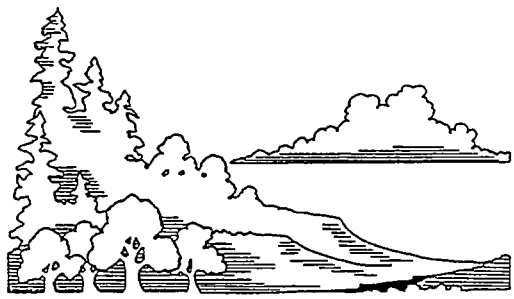
1. **Blue Oak Woodlands:** Blue Oak (Quercus douglasii) density (% canopy/crown cover) would not be reduced from the present level. The goal is to maximize wildlife habitat diversity. The following actions come out of the Sacramento River Area Management Plan (SRAMP) which is being carried foreward through this RMP. Maintain key "islands" of oak woodlands at a level of 70 square feet per acre basal area along Inks Creek and at 35 square feet/acre basal area throughout the remainder of the management area (SRAMP Action 9.1). Maintain, where available, two to four hardwood snags of 10 to 12 inches diameter breast height per acre (SRAMP Action 9.2). Maintain dead and down trees at a level of two to four per acre where available. Allow no consumptive uses of dead and down trees, but clear dead and down trees from within fifty feet of the "open" roads within the management area (SRAMP Action 9.3).

2. **Annual Grasslands:** The goal is to maintain an adequate cover of grasses and forbs to meet wildlife habitat needs, especially for the Columbia Black-Tailed Deer (1965 population level), watershed protection, and livestock grazing. The site, typically, would be dominated by a dense growth of grasses and forbs with a foliar cover of at least 50% or more. At least an average of 675 pounds per acre of residual mulch will remain at the end of the growing or grazing season, whichever is later.

3. **Stream & River Riparian:** The goal is to maximize vegetative volume of riparian areas to maintain a Class II or better condition. Additional goals are retention or improvement of stream and river bank stability and bank morphology. Ninety percent of the sites would be composed of very wet soil adapted plants in vigorous condition or by gravel and rock which do not allow bank erosion. Reproduction of species in both the understory and overstory is proceeding at a rate to insure continued ground/bank cover. A variety of vegetation species and age classes are represented.

4. **Wetlands and Vernal Pools:** The goal is to maintain and improve the diverse assemblage of animals, plants, and insects species that are associated and dependent on these environments. The site typically would be dominated by dense growth of herbaceous monocots. The vegetation would be composed mostly of native plants. Shrubs and trees would be nonexistent or found in trace amounts in the site. Restore or retain the natural vegetation complex in a late seral or potential natural community condition.

APPENDIX C
AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC) - DETERMINATIONS



APPENDIX C

AREAS OF CRITICAL ENVIRONMENTAL CONCERN - DETERMINATIONS

INTRODUCTION

This appendix represents the determinations to designate (or not designate) fifteen separate areas within the Redding Resource Area as Areas of Critical Environmental Concern (ACEC). The Federal Land Policy and Management Act (FLPMA) defines "ACEC" as an area where BLM has determined that "special management attention is required . . . to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources and other natural systems or processes, or to protect life and safety from natural hazards". This designation is unique to BLM.

The RMP is the principle means which BLM uses to identify, evaluate and, as appropriate, designate ACEC's. Designation of an ACEC at any time other than a land use planning effort requires a planning amendment and a public involvement process which parallels the RMP process. Section 202 (c) (3) of FLPMA gives priority to the designation and protection of ACEC's in developing and revising land use plans. This mandate and practical efficiency require their full consideration in this document

Designation as ACEC requires that a nominated area (all fifteen are nominated by BLM) possess relevance, importance, and require special management attention. Subsequent to these determinations, BLM must prescribe the long term (or short term in certain cases) management prescriptions in light of the various land use management alternatives considered in the RMP. Further information regarding ACEC characteristics, analysis, public involvement, management, and relationship to other designations is detailed in BLM Manual 1613.

DETERMINATIONS

The following discussions on the fifteen areas being considered for ACEC designation include the following information for each area: name of the potential ACEC, location, size, description of the relevance and importance of the area, special management attention required, and; the rationale for designation or non-designation in the preferred alternative (i.e., proposed action).

BAKER CYPRESS RESEARCH NATURAL AREA

This proposed Research Natural Area/ACEC consists of a 120 acre parcel of isolated public land in northeastern Shasta County. The parcel is located eight air miles south-southwest of Burney and immediately east of Tamarack Road in the western halves of Sections 24 and 25, T. 34 N., R. 2 E. (refer to Map 3-8b in packet).

Baker Cypress, Cupressus bakeri is an uncommon cypress due to its limited distribution, a high diversity among the few scattered populations and its genetically distinct taxon. Found only in eight locations in northern California, it has been placed on the California Native Plant Society Watch List 4 to encourage regular monitoring to assure no further degradation to existing populations. Lying 5 miles west of the balance of the Burney Springs/Cypress Camp population, this grove appears to be the best example of undisturbed stands of these relic trees which still exist in this population and possibly the most vigorous of any known populations anywhere. The remainder of these trees have been heavily impacted due to logging and vegetation type conversion. Only small (2 acres or less), non-contiguous slivers of young trees exist, sandwiched among large ponderosa pine plantations. Conversely, the proposed Research Natural Area/ACEC consists of 40 acres of undisturbed, multi-aged stands surrounded by 80 acres of light to virtually undisturbed habitat. These trees appear distinct from the population which BLM is protecting in the Timber Crater area, 30 miles to the northeast, which only occurs on lava flows. The proposed ACEC is associated

with a mixed conifer type. One of the eight populations now appears to be extinct. The remaining five populations appear to be classified as a subspecies, making the proposed ACEC unique. This location warrants protection from any further disturbance to retain this last prime example of this population for further research and study of this interesting but vulnerable species. Moreover, the location of the proposed ACEC in the heart of privately managed commercial forest land where vegetation type conversions are conducted necessitates special management attention for this residual parcel of public land. Therefore, designation as a Research Natural Area/ACEC is warranted.

BEEGUM GORGE OUTSTANDING NATURAL AREA

Beegum Gorge Outstanding Natural Area/ACEC contains approximately 4360 acres of public land located in T. 29 N. R. 9 W., Sections 19, 21, 22, 28, 29, 30, 31, 32, and 33, M.D.M., Tehama County, California. This ACEC occurs approximately one mile south of Platina, California and extends along Beegum Creek, from the U.S. Forest boundary, 4.4 miles down to State Highway 36 (refer to Map 3-10b in packet).

Inner Beegum Gorge has a scenic quality of "A" where the steep canyon walls form a narrow gorge over 2,000 feet deep in places. The creek bed is filled with large boulders and contains many deep pools and numerous waterfalls. High quality recreational pursuits which can be obtained in the canyon include: fishing, hiking and scrambling in the canyon bottom. and swimming in pools in the creek bed. Beegum Gorge offers the user a natural primitive type of outdoor experience to the hiker willing to scramble over this rugged terrain.

The stream corridor (within 1/4 miles of normal high water) has been determined eligible for inclusion in the National Wild and Scenic Rivers System with a preliminary classification as "Wild". This corridor has yet been recommended for inclusion to the U.S. Congress, pending an assessment of suitability for designation. Given the proposed transfer of this public land to the administration of the U.S. Forest Service, the interim protection required within the Wild and Scenic River study corridor, and the light public use (backed by an appropriate Recreation Opportunity Spectrum management classification as Semi-Primitive Non-Motorized), designation as an ACEC is unwarranted. Extant values are adequately protected through the measures noted above; and, no additional special management attention is deemed necessary. Moreover, application of a designation which is unique to BLM (ACEC) and subsequent transfer to the Trinity National Forest, serves no valid purpose. Decisions regarding special management needs and designations are deferred to the U.S. Forest Service.

BLACK MOUNTAIN

This potential ACEC contains approximately 1,680 acres of public land and 1,870 acres of private land in Sections 2-5 and 9-11, T. 46 N., R. 6 W. located approximately 10.5 air miles northeast of Yreka, California. The boundary of the potential ACEC includes Black Mountain and the drainage of Carson and Osburger gulches (Map C-1 within this appendix).

The area contains the Fat Rattlesnake Site, a medium-sized midden deposit within an upland setting above the Klamath River; the Osburger Site, a late prehistoric housepit village site along the river with associated petroglyphs; several rock features on Black Mountain including a rock enclosure and an extensive rock wall; and two historic miners' cabins apparently re-located from the historic lumber town of Klamathon.

Black Mountain has been identified to BLM by contemporary Shasta Indians as a sacred mountain to them. Its specific significance and use levels were not identified and its Indian name is not known.

Calochortus greenei, a candidate species for listing, probably occurs on the mountain. Lomatium peckianum is known to occur on the mountain. This is a potentially sensitive plant. There is also a relict stand of mixed conifers on the north side of the mountain of unknown importance.

The area does not warrant designation as an ACEC for the following reasons: The Osburger site (including the standing cabins) is located within the proposed corridor for a recreational component of the National Wild and Scenic Rivers System. Maintenance of the structures, continuation of the protective exclosures and continued withdrawal of this site from mineral entry are adequate protection for the prehistoric and historic resource values. Colochortus greenei and Lomatium peckianum occur throughout the region in isolated populations. Should these species be located on public lands, they will be fully considered prior to BLM approval of any surface disturbing action in consistency with BLM sensitive species policy. Similarly, the Fat Rattlesnake site must be considered for eligibility for inclusion in the National Register of Historic Places and implementation

of appropriate impact mitigation measures prior to any BLM authorizations on or near the site. Access to the peak and majority of the mountain for traditional uses is at the discretion of the private landowners. The actual level of contemporary Native American use and specific significance is unknown. Acquisition of the privately-owned lands by the Federal government necessitates detailed knowledge of the values and risks to such values if public stewardship is not implemented.

CLEAR CREEK

This potential ACEC is a narrow ribbon encompassing the 100 year floodplain of Clear Creek between the boundary of the Whiskeytown Unit of the National Recreation Area and the Sacramento River. A small amount of public land (less than 50 acres) fall within this narrow corridor in Sections 15 and 36, T. 31 N., R. 6 W. This potential ACEC is represented by the creek proper and immediately adjacent lands within the "Lower Clear Creek" polygon on Map 3-5a (in packet).

According to the 1989 report, Upper Sacramento River Fisheries and Riparian Habitat Management Plan, Clear Creek presently produces 2% of the salmon run of the upper Sacramento River watershed. With relatively minor habitat improvements, the production of this stream can be enhanced to provide up to 6% of the anadromous fisheries. This production capability enhanced by the possibility to regulate water temperatures, is unmatched within the region.

Clear Creek is located virtually next door to the expanding population center of Redding. This juxtaposition, historic mining activity, and water management measures have greatly impacted the original quality of the native stream. Continued demands on this stream coupled with anticipated increases in indirect impacts will certainly degrade the remaining value of this regionally significant stream.

BLM has reacted affirmatively to this management challenge within the context of the proposed action. Private land acquisition, cooperative efforts with others and the land use allocations prescribed in Chapter 3 should assist in the long term enhancement of the native fisheries. The very minute amount of public land within the corridor, the number of private landowners, and the interim protection afforded for the corridor (above Clear Creek Road bridge) under the National Wild and Scenic Rivers Act, makes designation as an ACEC premature. If BLM is able to acquire at least a significant minority land ownership interest, amendment of this RMP and designation of an ACEC may be warranted in the future.

DEER CREEK

The proposed ACEC encompasses approximately 5,000 acres including 620 acres of BLM administered public land in an approximately 8 mile long polygon located 20 air miles southeast of Red Bluff in Tehama County (Map 3-8b in packet).

This potential ACEC comprises the lower segment of the canyon proper of Deer Creek laying between the Deer Creek Irrigation District dam and the Lassen National Forest boundary near Rock Creek. The canyon adjoins the Ishi Wilderness Area. The creek immediately upstream has been identified as eligible for inclusion in the National Wild and Scenic Rivers System with a preliminary classification as "Wild". Similarly, the creek within the potential ACEC has been determined as eligible for inclusion as "Wild" and "Scenic".

This canyon is known as a miniature "Birds of Prey Canyon" due to the number and diversity of nesting raptors including Peregrine Falcon. This canyon also contains the nationally significant complex of refuge sites of Ishi and the last members of the Yahi tribe. Moreover, the canyon possesses important white water recreation opportunities and dramatic scenery.

The quality of values within this area certainly meet the relevance and importance criteria for designation as an ACEC. The relatively small amount of present BLM administered land is a concern, however. The BLM has approached a major corporate landowner in the canyon. This firm is willing to sell their interests to the Federal government. In anticipation of increased public ownership and in recognition of special management attention necessary to allow appropriate public use while protecting the outstanding natural values, ACEC designation is warranted.

FORKS OF BUTTE CREEK OUTSTANDING NATURAL AREA

The Forks of Butte Creek Outstanding Natural Area (ACEC) is located along Butte Creek from 8 to 13 miles northeast of Chico, California. The area of this potential ACEC varies by land use management alternative: In the Natural Values alternative, the ACEC extends downstream from Portuguese Point to the Centerville bridge and currently includes approximately 3,080 acres of public land. The Administrative Adjustment alterna-

tive contains approximately 1,130 acres of public land and only occurs within 1/4 mile of Butte Creek between the Forks of Butte Creek and the DeSabla Powerhouse. The proposed action or Resource Use with Natural Values Consideration alternative contains approximately 2,980 acres extending from Portuguese Point downstream to Helltown. Map 3-8b (in packet) shows the location and boundaries of this proposed ACEC.

Butte Creek canyon is a significant recreation use area which gives users the opportunity to engage in a variety of recreational pursuits. These include: recreational placer gold collection, fishing, swimming, sunning, picnicking, hiking, backpacking, nature study, hunting, and photography. These activities occur within a steep, rugged canyon containing the perennial waters of Butte Creek. The many rapids and waterfalls contribute to the scenic quality rating of "A" and VRM Class II of the area. Forks of Butte Creek ACEC contains a rapidly shrinking vestige of undeveloped rugged terrain, characteristic of the western foothills of the Sierra Nevada. Residential development is common along lower Butte Creek above Chico. This development is rapidly spreading northward towards Forks of Butte Creek.

Currently all of the existing land in the ACEC area is withdrawn from mineral entry to protect the recreational and natural values in the canyon. There are twelve existing mining claims in the withdrawn area. Any new mining actions on these claims, which cause significant surface disturbances, will necessitate the submission of a plan of operation and a reclamation bond to the BLM because of the ACEC determination.

Butte Creek has received continuous special management attention during the last decade due to the mix of competing interests. Population growth, increased public demands, increased public use and increasing impact to the local values (including looting of historic resources) necessitates continuation of special management attention. Designation as an Outstanding Natural Area/ACEC is warranted in recognition of this need.

JENNY CREEK

This potential ACEC is located in extreme north central Siskiyou County twenty-four air miles northeast of Yreka and immediately north of Iron Gate Reservoir (Map 3-2b in packet). The ACEC comprises approximately 1,000 acres including 320 acres of public land. A four mile length (including 1.5 miles BLM) of Jenny Creek courses through the middle of the potential ACEC. The area begins as a 400 foot wide corridor at the Oregon corridor and expands to encompass the canyon from the confluence of Skookum and Jenny Creeks to its downstream end.

The area immediately upstream has been determined by the Medford District (Oregon) of BLM as warranting designation as an ACEC to protect the endemic Jenny Creek Sucker (Catostomus rimiculus), a candidate for listing by the U.S. Fish and Wildlife Service. Nesting Bald Eagles are found within the canyon below Skookum Creek. Both of these species require long term protection. The proposed boundaries of this ACEC reflect the habitat requirements; i.e., constricted to conform with Oregon BLM protection for the sucker and the nesting and foraging needed for the Bald Eagles.

Given the proximity of a recreational facility, expanding rural residential developments, and the increasingly attractiveness of the upper Klamath to regional visitors, special management attention is required to protect these sensitive species and their habitat requirements. Designation as an ACEC is therefore warranted.

MINNEHAHA MINE

The ACEC is a natural hazard area caused by recent mining and the subsequent environmental problems. It is located in T. 24 N., R. 3 E., Section 8, SE 1/4, M.D.M., Butte County, California, approximately twelve miles north-northeast of Chico, California. This 160 acre parcel is located within the relatively steep canyon of Big Chico Creek, with the majority of the land on the east side of the creek. Refer to Map 3-8b for the location and boundaries of this potential ACEC.

Recent placer gold exploration and mining has adversely impacted the land, vegetation, fisheries, and water quality of Big Chico Creek. Very steep, substandard roads have been constructed down into the canyon and across Big Chico Creek by miners wishing to access a placer gold-bearing Tertiary stream channel. Where this ancient channel is exposed, approximately 100 feet above Big Chico Creek, miners have blasted and dug away the side of the canyon. Auriferous gravels from this channel have been sluiced for gold values and the tailings left on the steep slopes between the mine and Big Chico Creek. In December of 1985, approximately 135,000 gallons of deleterious clayey material entered Big Chico Creek when poorly constructed tailings pond dams abruptly failed. This action, as well as the ongoing erosion problems at the mine site and steep access roads, have led to the serious degradation of Big Chico

Creek and the fisheries that it supports. Much of the road access and mine site is built on serpentine and serpentine soils. This material is highly erosive, supports only sparse vegetation, is detrimental to fisheries when introduced into their waters, and is difficult to reclaim.

Big Chico Creek is an important trout stream which flows through the city of Chico, approximately 12 miles downstream of the Minnehaha mine. There has been significant and vocal concern and dissatisfaction expressed by the public and the State of California with the way the BLM has been managing this parcel and the mining thereon. Most of the comments received want the parcel closed to new mining and the environmental problems corrected.

The responsible miners have either been unwilling or unable to remedy the serious problems. BLM's 43 CFR 3809 Surface Management Regulations have proven to be inadequate to prevent this occurrence or to correct the problems. FLPMA mandates that the BLM "prevent unnecessary or undue degradation of the lands."

On October 19,1989, the BLM issued an emergency vehicular closure order for the Minnehaha Mine parcel. This order has had two intended effects: It legally closes the entire parcel and access roads to motorized vehicle use and it means that 43 CFR 3809 Plans of Operation, rather than Notices, must be filed with the BLM by prospective miners before any new mining commences. These Plans of Operation would entail extensive BLM review and modifications, if necessary. Bonding would be mandatory. The finding, in this RMP, that Big Chico Creek is an eligible component of the National Wild and Scenic Rivers System also means that any serious mining activity on the parcel would require a Plan of Operation rather than a Notice. During the fall of 1991, the BLM performed extensive reclamation work on the site by removing all the trash and debris, recontouring the mine, revegetating the disturbed surfaces and rehabilitating the access roads. A locked gate was also installed on the access road onto the parcel.

The designation of this parcel as an ACEC would do no more than what the above actions have already accomplished, therefore, designation as an ACEC is not warranted. Withdrawal of this parcel from new mining claims is deemed necessary to prevent further degradation and to protect investments of public funds. The immediate goal is to manage this parcel for non-mining purposes until the environmental damage is controlled. Hopefully, erosional stabilization will be effected during the life span of the RMP. The ultimate goal is to make this parcel available for transfer to state or local agencies for long term administration of it's natural values.

ORCUTTIA TENUIS (HAWES CORNER) RESEARCH NATURAL AREA

This potential ACEC includes 40 acres of public land and 20 acres of adjoining private land on the Stillwater Plains three air miles northeast of Anderson in Shasta County. The parcel is located north of Dersch Road and east of Beatie Road on the upland terrace between Stillwater and Cow Creeks (see Map C-2).

Slender orcutt grass, Orcuttia tenuis is a native annual grass species that is only found growing in vernal pools located in and around the north end of the Sacramento Valley and no other place in the world. It is listed by the state as Endangered and as a Candidate Species (Category i) for listing with the U.S. Fish and Wildlife Service. Ninety-five percent of its original habitat range have disappeared through agricultural and urban development, with only 37 known populations in existence today. With the majority of its habitat located upon private lands, this plant's existence continues to be threatened by disturbance and destruction of its fragile habitat. These vernal pool habitats also support a unique variety of other plants and invertebrate species that have very limited distribution, which also need protection.

Designation as an ACEC is warranted to conserve these pools due to their botanical importance and in recognition of the special management attention necessary to safeguard the physical condition of these specific pools located close to the growing population center of Redding. Management as a Research Natural Area is intended to encourage scientific study of the genetic variability and critical habitat requirements of the populations of this species.

SACRAMENTO RIVER AREA OUTSTANDING NATURAL AREA (BEND AREA)

The Sacramento River Area represents a significant, irreplaceable ecosystem; the last remaining riparian system of any size on the river between Sacramento and Shasta Dam. The area lies just upstream of Red Bluff, California along the Sacramento River. It includes public and private land on both sides of the river and portions of the Battle Creek, Inks Creek, and Paynes Creek drainages (refer to "Bend Area" polygon on Map 3-6c in packet). The dominating topographic feature of the area

is Table Mountain. While some narrow strips of riparian vegetation remain along the river, this is the only remaining site where a basically natural system extends from the river back to the surrounding uplands. Agricultural or residential disturbances have largely bypassed this land. Of the approximately 40,000 acres in the Sacramento River Area, most is in natural or near natural condition. The BLM has been working to consolidate Federal ownership in this critical area for over 20 years.

The area contains: vernal pools which contain a number of species including over 25% of the known global distribution of the plant Orcuttia tenuis a Candidate Species (Category 1) for listing with the U.S. Fish and Wildlife Service, two populations of the Federal Candidate (Category 2) of Calycadenia freemontii, relatively undisturbed archaeological sites including major river villages, a diversity of raptors including nesting bald eagles, wetlands important to significant numbers of wintering waterfowl, including sandhill crane, regionally important steelhead and salmon spawning habitat, and the only sizeable deer winter range habitat along the Sacramento River. The area is also extremely attractive and accessible to a large population. As other portions of the Sacramento River are developed or access is otherwise precluded, this area receives ever increasing numbers of recreational users. People are drawn to the area to fish, boat, raft, hunt, hike, ride horses, and appreciate the scenic quality of the river, canyons, and blue oak uplands.

The area warrants designation as an ACEC since the values have regional importance, are uncommon in public ownership, and are increasing in significance as other portions of the river and surrounding environments are developed. Due to the increasing demands on the area, special management attention is needed. Management as an Outstanding Natural Area will encourage recreational use while recognizing the need to protect extant natural and cultural resources.

SACRAMENTO RIVER ISLAND RESEARCH NATURAL AREA

This potential ACEC is a former island lying across the Sacramento River below the mouth of Clear Creek immediately south of the city limits of Redding (Map 3-6c in packet). The ACEC consists of 125 acres of Great Valley - Valley Oak riparian forest and adjoining 200 acres of River frontage. A single parcel of public land encompassing 88 acres lies within the center of this important habitat. This area is the northernmost site of high priority habitat along the Sacramento River north of the State Capitol as indicated in the Sacramento River Riparian Atlas of 1988. This area contains the largest unaltered fragment of native riparian forest within Shasta County and the largest parcel of public owned habitat. The habitat is wedged between a commercial sand and gravel plant, developed residential/agricultural land and Interstate 5. Due to the regional importance of this remaining native habitat and the special management attention required to protect the habitat from adjoining uses and urban demands, designation as an ACEC is warranted. Management as a Research Natural Area will encourage development of baseline data inventories to use the area as a native habitat base to judge or improve the health of degraded habitat elsewhere in the region. Moreover, inclusion of adjoining degraded habitat will permit testing the effectiveness and costs of various habitat improvement measures. The results of these tests can be applied elsewhere without additional risk to the remaining quality habitat or private land values.

SECRET SPRING MOUNTAIN

The potential ACEC consists of 1,560 acres of private land and 1,080 acres of public land (280 U.S. Forest Service and 800 BLM) overlooking the Klamath River and the Oregon state line thirty air miles northeast of Yreka in Siskiyou County (Map C-3).

According to earlier BLM planning documents, the area contained primitive recreational opportunities and may possess important wildlife, archaeological, and vegetation values. Inventories conducted in concert with this RMP effort have identified the following values: nesting prairie falcons, typical upland fauna, spectacular landscape due to the rocky cliffs, a sparse forest of old growth mixed conifers in generally unsuitable soils, a low density of archaeological resources.

The area possesses in sum, values of perhaps local importance. However, public use of the area and potential impacts to these values are low. Threats from land development projects is not expected due to the remote location and rugged character of the land. Therefore, special management attention is unnecessary and designation as an ACEC is unwarranted.

SWASEY DRIVE ACEC

This potential ACEC contains approximately 400 acres of public land immediately west and adjoining Swasey Drive on the western outskirts of Redding (Map C-4). There are at least eight prehistoric sites within the area including one known and four probable deep multi-com-

ponent middens. These middens represent a major regional aboriginal focus along Olney Creek, a principal tributary of the Sacramento River. In conjunction, the six middens and two lithic scatters exemplify a suite of possibly related occupational and special use sites that characterize upland Sacramento Valley use over a period of at least 3,000 years and possibly longer. There is no other known concentration of such significant sites on the west side of the very north end of the Valley that are in such good condition, let alone under public stewardship.

Scientific testing of one of these sites, the Middle Mule Site, revealed at least three and maybe four components, the earliest of which has not been defined in the northern Sacramento Valley prior to this investigation. This component may date back to 4,000 - 5,000 years or more. This study revealed that this site was a significant village with considerable remaining outstanding research value regarding questions of upland adaptations, culture change, regional trade, mortuary practices, etc. The other major middens have surface artifacts, exposed profiles, and extent indicating that they are probably of a similar character, possibly indicative of a tribelet pattern.

In addition to the prehistoric sites there are at least ten historic sites in this area that relate to gold mining activities, both placer and lode. These sites span the time period of at least circa 1870 to 1940 and include the remains of a rare arrastre and the Boswell mining complex, including remnants of a mill and other structures. The Boswell group is earmarked in the Mines and Mineral Resources of Shasta County and in other reports. There are a number of cabin foundations also present that offer research opportunities for understanding the life of the isolated 19th century miner working under marginal conditions, a portion of history not well-defined. While generally commonplace in Shasta County, the area also contains numerous examples of the mined landscape ranging from coyote holes and amorphous tailing piles to stacked rock walls, ditches, and worked veins of quartz. In conjunction with the other associated mining-related features and structures, this area may be a good, possible unusual, example of a fast-disappearing historic landscape/use zone in the eastern Klamath Mountains under public ownership.

The archaeological sites are fragile, especially the middens, cabin foundations, and lithic scatters and easily subjected to damage. The major middens have been looted by relic hunters over the years with looting an ongoing problem at the time this report was prepared. With encroaching development, without special management attention this problem will likely increase. Off-Road vehicle use has created disturbances to at least four of the prehistoric sites. This use poses a serious problem to the integrity of portions of these sites as rutting, road-widening, trailing and other use have damaged artifacts and the deposit, including the archaeological context of portions of these sites. Mining activities have and may damage additional portions of the sites in the area. Such damage has resulted from road construction with bulldozers and trenching.

Special management attention is required to protect these irreplaceable resources from ongoing impacts. Anticipated growth in the immediate vicinity and demands of the growing population of the Redding area will degrade these heritage values without special protective management actions. Furthermore, periodic mineral exploration in this area of former production will cumulatively impact the identified values. Therefore, designation as an ACEC is warranted to help focus the management attention required to protect the cultural resources and to provide management measures to lessen the potential impacts of mineral exploration and annual assessment work.

TEDOC MOUNTAIN RESEARCH NATURAL AREA

This potential ACEC includes 160 acres of public land in the NW 1/4, Section 28, T. 28 N., R. 9 W. adjoining the Trinity National Forest 7.5 air miles south of Platina in Tehama County (Map 3-10b in packet). This parcel is contiguous with a proposed Special Interest Area designed to protect and conserve endemic plant species. Management in cooperation with the U.S. Forest Service has been considered for some time to provide effective stewardship and physical access from Forest Service road 28N05 which accesses Tedoc Mountain.

The area is largely composed of ultramafic geology with associated plant communities that are both unique and diverse. Within these, a number of serpentine endemic plants are found that are rare and one in particular, the Mt. Tedoc Linanthus, Linanthus nuttalli spp. howellii, is a candidate for federal listing. This area is also the type locality (first known location) for at least one of these species, giving the site scientific significance. The area is visited by members of the California Native Plant Society and others interested in the unusual flora and setting of Tedoc Mountain.

The proposed action for this parcel is to transfer administration to the U.S. Forest Service to manage in concert with the proposed Special Interest Area. Designation as an ACEC would serve little purpose and is, therefore, unwarranted.

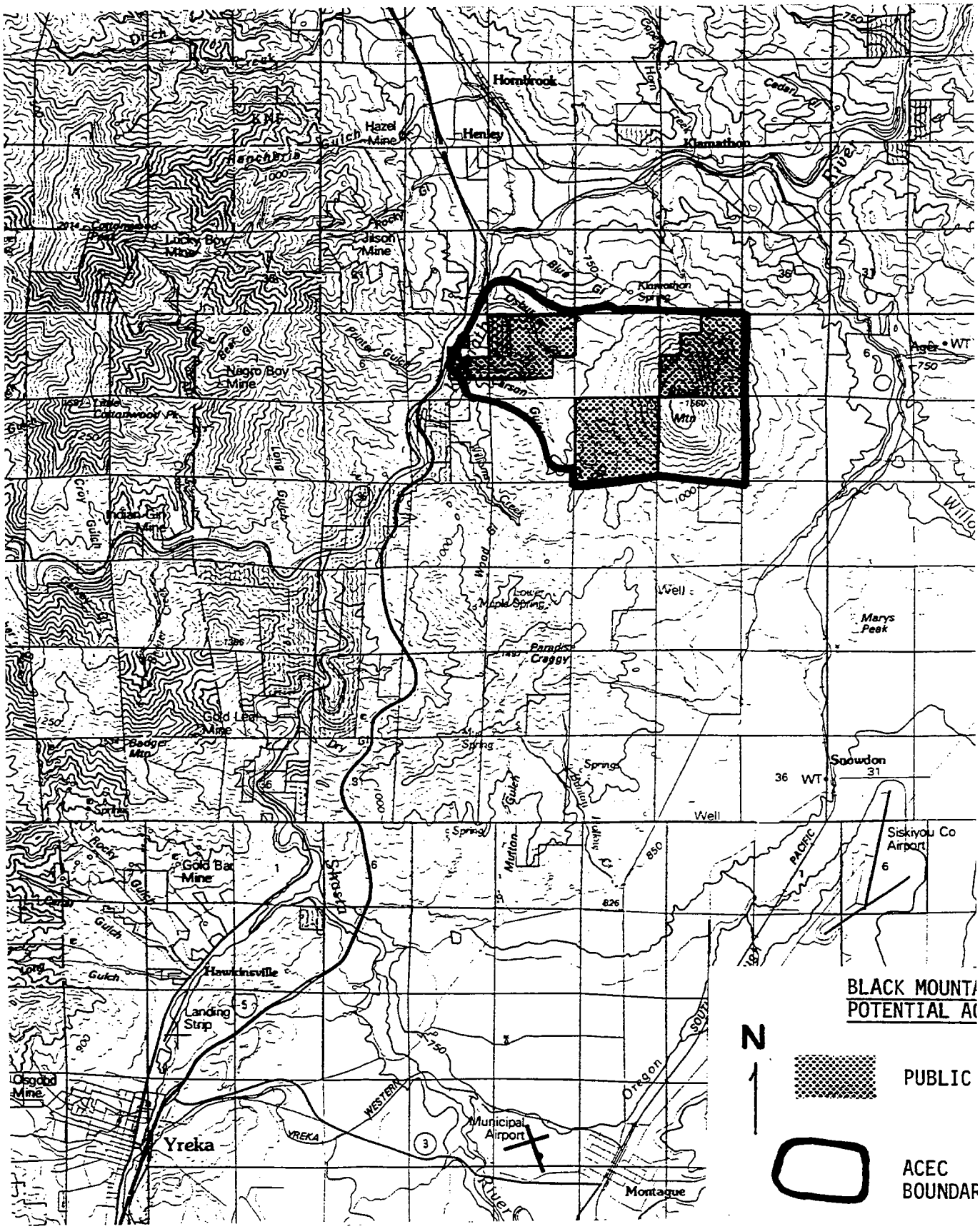
TRINITY RIVER

This potential ACEC consists of the 100 year flood plain of the Trinity River between Lewiston and North Fork Trinity River (refer to Map 3-5b). Roughly one-half of this corridor is public owned principally under the administration of BLM. The Trinity National Forest administers portions of this potential ACEC above Lewiston and between Browns Creek and Deep Gulch. The State of California and County of Trinity also administers a fraction of this corridor.

The Trinity possesses outstanding recreational value and a regionally significant fisheries. The river has been included as a Recreational component of the National Wild and Scenic Rivers System through a nomination by a former governor of the State of California.

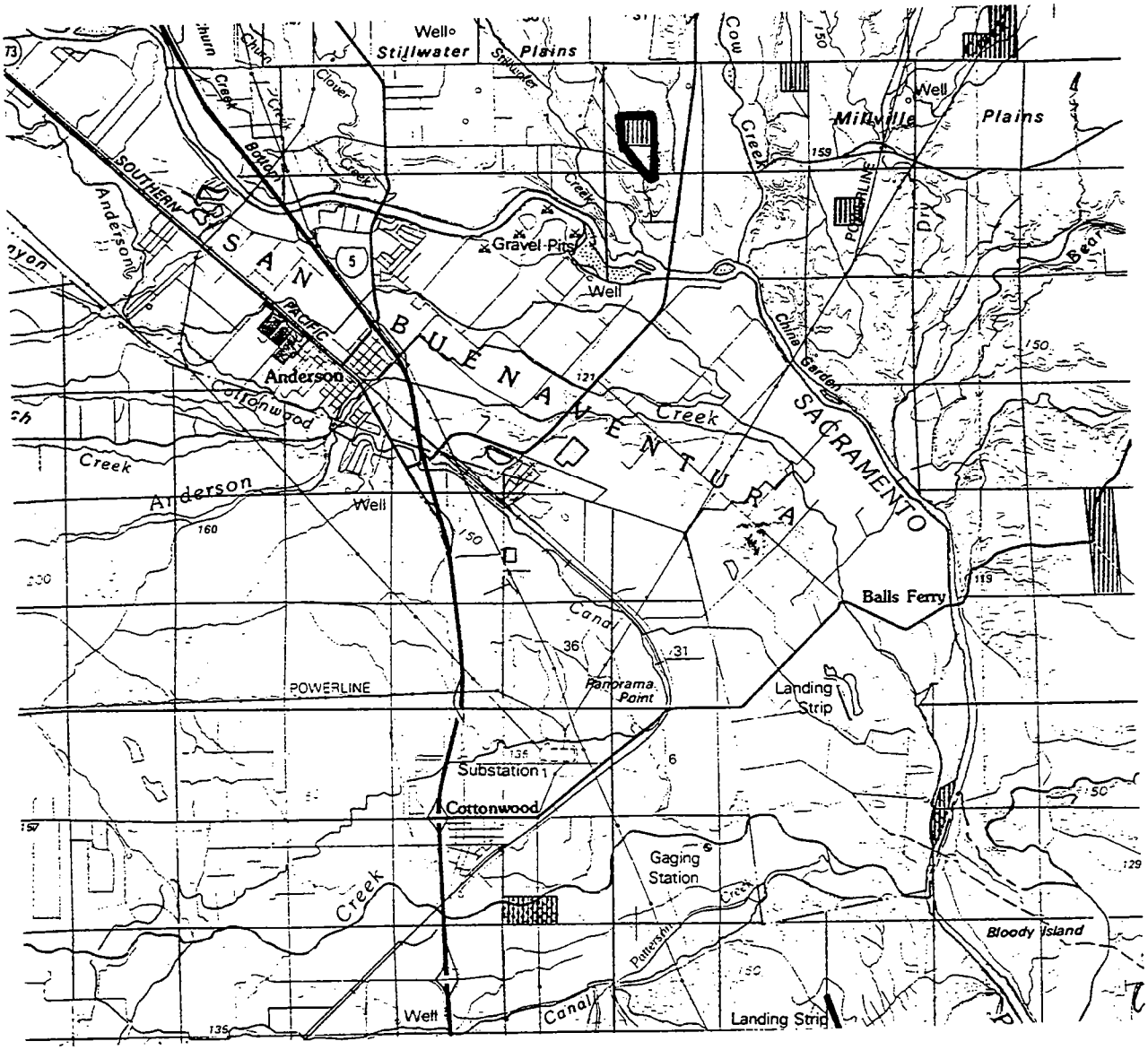
The Trinity has been negatively affected by water impoundment, upstream logging, rural/suburban residential development, and mining activities both past and present. Federal, state and local agencies are cooperating to ameliorate past impacts to the river, especially the anadromous fish habitat.

The proposed action for the Trinity River includes establishment of a designated corridor which encompasses the potential ACEC. The river is recommended for withdrawal from mineral entry and for management under VRM Class II guidelines. BLM is also recommending acquisition of undeveloped privately owned and consolidated administration to ensure long term protection of the fisheries, scenic quality, cultural resources, and recreational value of this corridor. ACEC designation is not warranted since BLM has and anticipates sufficient capability to protect this significant river through existing and proposed designations and land use allocations.



MAP C-1

SCALE 1:100,000



MAP C-2

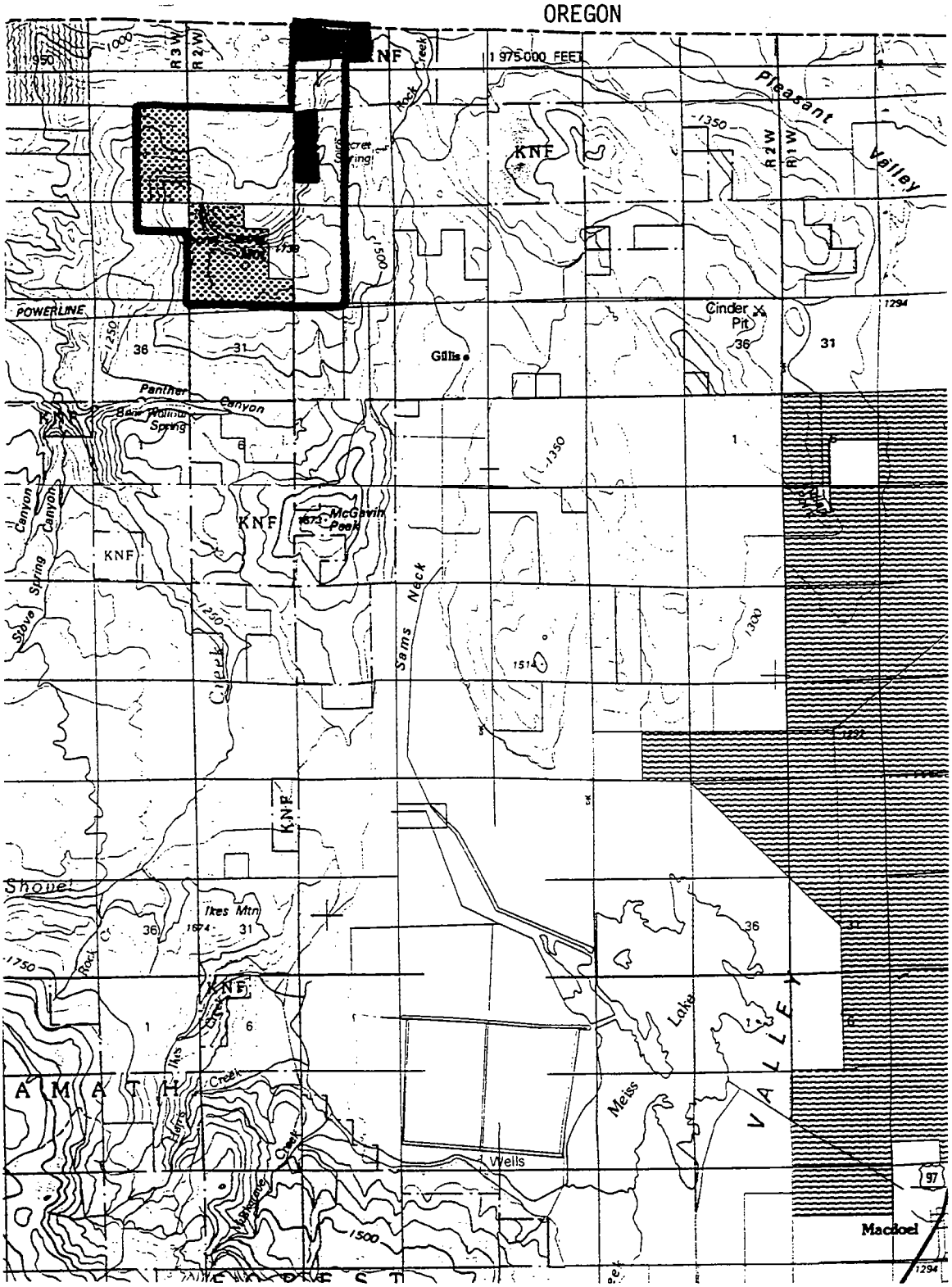
HAWES CORNER
POTENTIAL ACEC

SCALE 1:100,000

N

PUBLIC LAND

ACEC BOUNDARY



MAP C-3

PUBLIC LAND

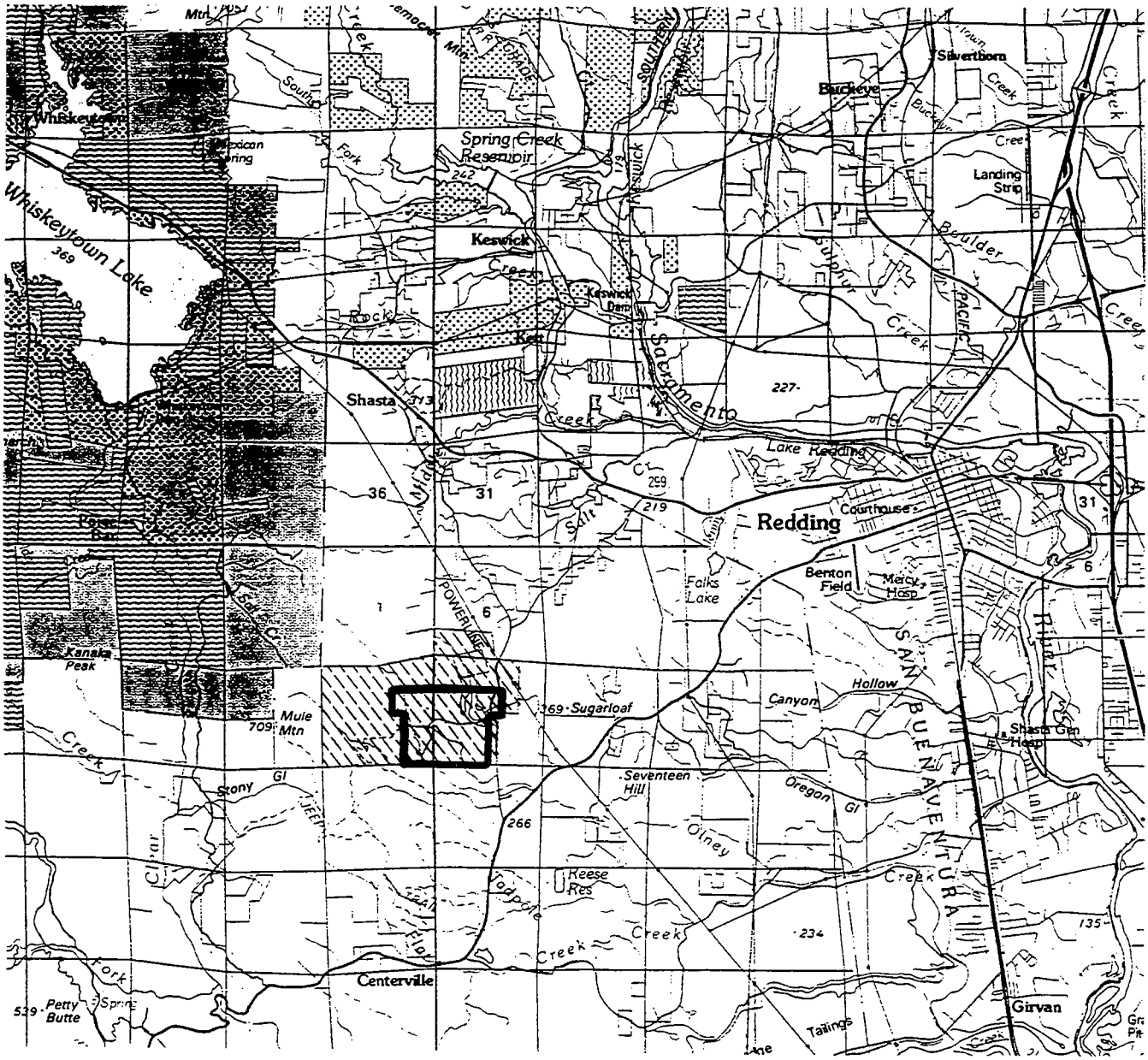
U.S. FOREST SERVICE

ACEC BOUNDARY

N

SECRET SPRING MOUNTAIN
POTENTIAL ACEC

SCALE 1:100,000



MAP C-4

SWASEY DRIVE
POTENTIAL ACEC

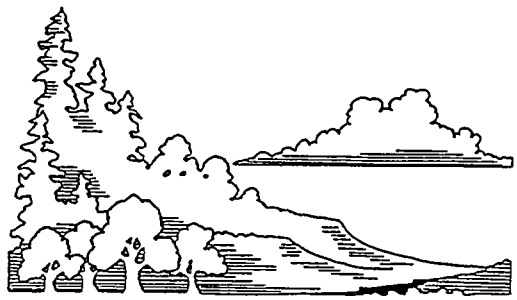
N

SCALE 1:100,000

PUBLIC LAND

ACEC BOUNDARY

APPENDIX D
SPECIAL STATUS SPECIES ON PUBLIC LANDS WITHIN THE REDDING RESOURCE AREA



APPENDIX D

SPECIAL STATUS SPECIES

KNOWN OR SUSPECTED TO OCCUR ON PUBLIC LAND ADMINISTERED BY BLM IN THE REDDING RESOURCE AREA

CODES FOR FEDERAL AND STATE STATUS:				
C: Candidate	E: Endangered	N: Not Listed	R: Rare	T: Threatened

Listed or Candidate Species

ANIMALS

SPECIES	COMMON NAME	FEDERAL STATUS	STATE STATUS	OCCURRENCE
Buteo swainsoni	Swainson's hawk	N	T	Known
Coccyzus americanus	Yellow Billed Cuckoo	N	E	Known
Empidonax traillii	Willow Flycatcher	N	E	Known
Falco peregrinus	Peregrine Falcon	E	E	Known
Grus canadensis tabida	Greater Sandhill Crane	N	T	Known
Gulo gulo	Wolverine	N	E	Suspected
Haliaeetus leucocephalus	Bald Eagle	E	E	Known
Hydromantes shastae	Shasta Salamander	N	T	Known
Plethodon stormi	Siskiyou Mountain Salamander	N	T	Suspected
Riparia riparia	Bank Swallow	N	T	Known
Strix occidentalis caurina	Northern Spotted Owl	T	N	Known
Strix occidentalis occidentalis	California Spotted Owl	C	N	Suspected
Vulpes vulpes necator	Sierra Nevada Red Fox	N	T	Suspected

SPECIES	COMMON NAME	FEDERAL STATUS	STATE STATUS	OCCURRENCE
FISH				
Catostomus rimiculus	Jenny Creek Sucker	C	N	Known
Chamistes brevirostris	Shortnose Sucker	E	E	Known
Deltistes luxatus	Lost River Sucker	E	E	Known
Oncorhyncus tshawytscha	Chinook Salmon (winter run)	T	E	Known
PLANTS				
Agrostis hendersonii	Henderson's Bentgrass	C		Suspected
Arctostaphylos klamathensis	Klamanth Manzanita	C		Suspected
Botrychium ascendens	Triangular-Lobed Moonwort	C		Suspected
Botrychium crenulatum	Crenulate moonwort	C		Suspected
Brodiaea coronaria ssp. rosea	Indian Valley Brodiaea	C	E	Known
Calochortus greenei	Greene's Mariposa	C		Known
Calochortus monanthus	Shasta River Mariposa	C		Suspected
Calochortus persistens	Siskiyou Mariposa	C	R	Suspected
Calycadenia fremontii	Fremont's Calycadenia	C		Known
Chamaesyce hooveri	Hoover's Spurge	C		Suspected
Cirsium ciliolatum	Ashland Thistle	N	E	Known
Clarkia borealis ssp. arida	Northern Clarkia	C		Suspected
Cordylanthus tenuis ssp. pallescens	Pallid Bird's Beak	C		Suspected
Cryptantha crinita	Silky Cryptantha	C		Known
Draba carnosula	Mt. Eddy Draba	C		Suspected
Eriastrum brandegeae	Brandegee's Eriastrum	C	R	Known
Fritillaria pluriflora	Adobe-Lily	C		Suspected
Gratiola heterosepala	Boggs Lake Hedge-Hyssop	C	E	Known
Ivesia peckeringii	Pickering's Ivesia	C		Suspected

SPECIES	COMMON NAME	FEDERAL STATUS	STATE STATUS	OCCURRENCE
Lewisia stebbensii	Stebbens' Lewisia	C		Suspected
Limnanthes floccosa ssp. bellingeriana	Bellinger's Meadowfoam	C		Suspected
Limnanthes floccosa ssp. californica	Butte County Meadowfoam	C	E	Suspected
Linanthus nuttalli spp. howelli	Mt. Tedoc Linanthus	C		Suspected
Lupinus antoninus	Anthony Peak Lupine	C		Suspected
Monardella douglasii var. venosa	Veiny Monardella	C		Suspected
Orcuttia pilosa	Hairy Orcutt Grass	C	E	Suspected
Orcuttia tenuis	Slender Orcutt Grass	C	E	Known
Orthocarpus pachystachyus	Shasta Owl's-Clover	C		Suspected
Paronychia ahartii	Ahart's Whitlow-Wort	C		Known
Penstemon personatus	Closed-Throated Beardtongue	C		Known
Phacelia cookei	Cooke's Phacelia	C		Suspected
Phacelia dalesiana	Scott Mountain Phacelia	C		Suspected
Phacelia greenei	Scott Valley Phacelia	C		Known
Phlox hirsuta	Yreka Phlox	C	E	Suspected
Poa fibrata	Lassen County Bluegrass	C		Suspected
Rhynchospora californica	California beaked-rush	C		Suspected
Rorippa columbiae	Columbia Yellow Cress	C		Suspected
Sagittaria sanfordii	Sanford's Arrowhead	C		Suspected
Sanicula tracyi	Tracy's Sanicle	C		Suspected
Sedum obtusatum ssp. paradisum	Canyon Creek Stonecrop	C		Known
Sidalcea robusta	Butte County Checker-Mallow	C		Known

SPECIES	COMMON NAME	FEDERAL STATUS	STATE STATUS	OCCURRENCE
Silene occidentalis ssp. longistipitate	Butte County Catchfly	C		Suspected
Streptanthus sp. nov.	Pit River Jewelflower	C		Suspected
Tuctoria greenei	Greene's Orcutt Grass	C	R	Suspected

SPECIAL INTEREST PLANTS

Taken from the California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California, 4th edition, 1988.

List IA: Plants presumed extinct in California

List IB: Plants rare, threatened, or endangered in California & elsewhere

List 2: Plants rare, threatened, or endangered in California but more common elsewhere

List 3: Review list - data needed on distribution, endangerment, taxonomic validity, etc.

List 4: Watch list - plants of limited distribution but low vulnerability

Plants known to occur on BLM lands (*).

NOTE: All species on lists 1A & 1B will be considered as Sensitive Species under the BLM Special Status Species category.

Scientific Name	Common Name	List #
Allium hoffmanii	Beegum onion	4*
Allium siskiyouense	Siskiyou onion	4
Amsinckia lunaris	bent-flowered fiddleneck	4
Angelica arguta	angelica	4
Antirrhinum subcordatum	dimorphic snapdragon	1B*
Arabis modesta	modest rock cress	3
Arabis oregana	Oregon rock cress	3
Arabis rigidissima	Trinity Mtns. rock cress	4
Arctostaphylos truei	True's manzanita	3
Arnica cernua	serpentine arnica	4
Arnica spathulata ssp. spathulata	Klamath arnica	4
Arnica venosa	Shasta County arnica	4*
Arnica viscasa	Mt. Shasta arnica	4
Asplenium septentrionale	northern spleenwort (fern)	2

Scientific Name	Common Name	List #
Aster brickelliaides var. brickellioides	brickellbush aster	4
Astragalus inversus	Susanville milk vetch	4
Astragalus pauperculus	depauperate milk vetch	4
Balsamorhiza macrolepis var. macrolepis	balsamroot	3
Balsamorhiza sericea	silky balsamroot	4
Bromus polyanthus	Great Basin brome grass	3
Calochortus longebarbatus var. longebarbatus	long-haired star tulip	1B
Calochortus nudus var. shastensis	Shasta star-tulip	3
Calycadenia oppoaitifolia	Butte County calycadenia	4
Calystegia atriplicifolia var. buttenis	Butte County morning glory	3
Campanula scabrella	rough harebell	4
Campanula wilkinsiena	Wilkins' harebell	1B
Cardamine pachystigma var. dissectifolia	dissected-leaf toothwort	3
Carex geyeri	Geyer's sedge	3
Carex gigas	Siskiyou sedge	4
Castilleja brevilobata	short-lobed Indian paintbrush	4
Castilleja schizotricha	split-hair Indian paintbrush	4
Chaenactis suffrutescens	Shasta chaenactis	4
Chamaesyce ocellata	Stony Creek spurge	4
Clarkia borealis ssp. arida	northern clarkia	4
Clarkia mildrediae	Mildred's clarkia	4
Clarkia mosquinii spp. mosquinii	Mosquin's clarkia	1A
Clarkia mosquinii spp. xerophila	Enterprise clarkia	1A
Claytonia palustris	marsh claytonie	3
Collomia debilis var. larsenii	talus collomia	2
Collomia tracyi	Tracy's collomia	4

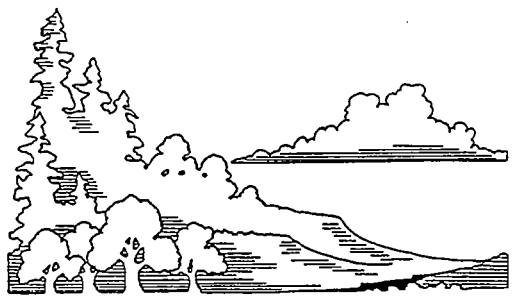
Scienific Name	Common Name	List #
Corydalis caseana ssp. caseana	Sierra corydalis	4
Cryptantha subretusa	Mt. Eddy cryptantha	2
Cupressus bakeri ssp. bakeri	Baker Cypress	4*
Cuscuta howelliana	Boggs Lake dodder	4
Cypripedium californicum	California lady's-slipper	4*
Cypripedium fasciculatum	clustered lady's-slipper	4
Cypripedium montanum	mountain lady's-slipper	4*
Darlingtonia california	California pitcher plant	4
Delphinium uliginosum	swamp larkspur	4
Deschampsia atropurpurea	mountain hairgrass	4
Dicentra formosa ssp. oregana	Oregon bleeding heart	4
Dichelostemma venustum	rose firecracker flower	4
Dimeresia howellii	doublet	4
Draba howellii	Howell's draba	4
Draba pterosperma	winged-seed draba	4
Drosera anglica	English sundew	2
Epilobium canum ssp. septentrionale	Humboldt County fuchsia	4
Epilobium oreganum	Oregon fireweed	4
Epilobium rigidum	Siskiyou Mtns. willowherb	4
Epilobium siskiyouense	Siskiyou fireweed	1B
Erigeron bloomeri var. nudatus	Waldo daisy	2
Erigeron cervinus	Siskiyou daisy	3
Erigeron decumbens var. robustior	robust daisy	4
Erigeron elegantulus	volcanic daisy	4
Erigeron miser	starved daisy	4
Eriogonum congdonii	Congdon's buckwheat	4

Scientific Name	Common Name	List #
Eriogonum libertinii	Dubakella Mtn. buckwheat	4*
Eriogonum siskiyouense	Siskiyou buckwheat	4
Eriogonum strictum var. greenei	Greene's buckwheat	4
Eriogonum ternatum	ternate buckwheat	4
Eryngium mathiasae	Mathias' button-celery	4
Erythronium citrinum	lemon-colored fawn lily	4
Erythronium klamathense	Klamath fawn lily	4
Eupatorium shastense	Shasta eupatory	4
Forsellesia stipulifera	stipule-bearing forsellesia	2
Fritillaria eastwoodiae	Butte County fritillary	3*
Fritillaria purdyi	purdy's fritillary	4
Galium serpenticum ssp. scotticum	Scott Mtn. bedstraw	1B
Gentiana setigera	Mendocino gentian	3
Hackelia amethystina	amethyst stickseed	4
Hackelia cusickii	Cusick's stickseed	4
Haplopappus ophitidis	serpentine haplopappus	4*
Helianthus exilis	serpentine sunflower	3
Iliamna bakeri	Baker's globe mallow	4
Iris chrysophylla	yellow-flowered iris	4
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	1B*
Juncus tenuis var. dudleyi	Dudley's rush	3
Lepidium latipes	dwarf pepper-grass	4
Lewisia cantelowii	Cantelow's lewisia	1B
Lewisia cotyledon ssp. heckneri	Heckner's lewisia	1B*
Lewisia cotyledon ssp. howellii	Howell's lewisia	4
Lilium bolanderi	Bolander's lily	4

Scientific Name	Common Name	List #
Lilium rubescens	redwood lily	4
Lilium vollmeri	Vollmer's lily	4
Lilium washingtonianum var. purpurascens	purple-flowered Shasta lily	4
Lilium wigginsii	Wiggins' lily	4
Limnanthes floccosa var. floccosa	woolly meadowfoam	3*
Linanthus rattanii	Rattan's linanthus	4
Listera cordata	heart-leaved twayblade	4
Lomatium engelmanii	Engelmann's lomatium	4
Lomatium howellii	Howell's lomatium	4
Lomatium peckianum	Peck's lomatium	2*
Lomatium tracyi	Tracy's lomatium	4
Lotus yollabolliensis	Yolla Bolly bird's-foot trefoil	4
Lupinus croceus var. pilosellus	saffron-flowered lupine	4
Lupinus lapidicola	Mt. Eddy lupine	4
Lupinus tracyi	Tracy's lupine	4
Madia stebbinsii	Stebbins' madia	1B
Malacothamnus helleri	Heller's bush mallow	4
Mimulus glaucescens	shield-bracted monkey flower	4
Mimulus lanciniatus	cut-leaved monkey flower	4
Minuartia decumbens	The Lassics sandwort	IB
Minuartia rosei	Peanut sandwort	4*
Monardella purpurea	Siskiyou monardella	4
Navarretia heterandra	Tehama navarretia	4
Navarettia jepsonii	Jepson's navarretia	4
Navarretia subuligera	awl-leaved navarretia	4
Orthocarpus cuspidatus	Siskiyou Mtns. owl's-clover	4

Scientific Name	Common Name	List #
Pedicularis contorta	curved-beak lousewort	2
Pedicularis flavida	Cascade Mtns. lousewort	2
Penstemon cinereus	gray beardtongue	2
Penstemon cinicola	ash beardtongue	4
Penstemon filiformis	thread-leaved penstemon	1B
Penstemon neoterious	Plumas County beardtongue	4
Penstemon purpusii	Snow Mtn. beardtongue	4
Penstemon shastensis	Shasta beardtongue	4
Penstemon leptocarpa	narrow-seeded yampah	4
Phacelia leonis	Siskiyou phacelia	3
Phacelia sericea	blue alpine phacelia	2
Phacelia vallicola	Mariposa phacelia	4
Phlox bryoides	moss phlox	2
Picea engelmannii	Engelmann's spruce	2
Poa rhizomata	timber bluegrass	4
Polygonum bidwelliae	Bidwell's knotweed	4*
Polystichum kruckebergii	Kruckeberg's swordfern	4
Polystichum lonchitis	holly fern	3
Puccinellia howellii	Howell's alkali grass	-
Puccinellia pumila	dwarf alkali grass	3
Quercus lobata	valley oak	4*
Raillardella scabrida	scabrid raillardella	4
Ribes hudsoniannum var. petiolare	western black current	2
Salvia dorrii var. carosa	fleshy sage	3
Saxifraga caespitosa	tufted saxifrage	3
Saxifraga howellii	Howell's saxifrage	4

Scientific Name	Common Name	List #
Sedum laxum ssp. flavidum	pale yellow stonecrop	4
Sedum laxum ssp. heckneri	Heckner's stonecrop	4
Senecio eurycephalus var. lewisrosei	cut leaved butterweed	1B
Senecio foetidus var. foetidus	sweet marsh butterweed	3
Sidalcea setosa spp. setosa	Edgewood checkerbloom	4
Silene suksdorfii	Cascade alpine campion	2
Smilax jamesii	English Peak greenbriar	4
Spartina gracilis	alkali cordgrass	4
Stellaria obtusa	obtuse stellaria	3
Stipa lemmonii var. pubescens	pubescent needlegrass	3
Streptanthus drepanoides	sickle-leaved jewelflower	4
Streptanthus tortuosus	mountain jewelflower	3
Tauschia glauca	glaucous tauschia	4
Thelypodium brachycarpum	short-podded thelypodium	4
Thermopsis macrophylla var. argentata	silvery false-lupine	4
Trifolium howellii	Howell's clover	4
Trilliuim ovatuim ssp. oettingeri	Salmon Mtns. wakerobin	4
Triteleia crocea var. crocea	yellow triteleia	4
Triteleia crocea var. modesta	Trinity Mtns. triteleia	4
Vaccinium coccineum	Siskiyou Mtns. huckleberry	3
Veratrum insolitum	Siskiyou false-hellebore	4



APPENDIX E

43 CFR 3809 STANDARDS FOR MINING, CONSTRUCTION AND RECLAMATION IN THE REDDING RESOURCE AREA

The following operational guidelines for mining activities have been compiled to assist the miner in complying with the 43 CFR 3809 regulations, which apply to all mining operations on BLM administered lands. The manner in which the necessary work is to be done will be site specific and all of the following recommendations may not apply to each mining operation. It is the miner's responsibility to avoid "unnecessary or undue degradation" and perform all needed reclamation work. Please refer to the 43 CFR 3809 regulations for general requirements. The BLM will provide site specific guidelines and requirements for some mining proposals.

CONSTRUCTION AND MINING

Vegetation Removal

Remove only that vegetation which is in the way of your mining activities. Removed small trees and shrubs are to be lopped and scattered, or shredded for use as mulch. Trees over 12 inches diameter breast height (DBH) are to be bucked and stacked in an accessible location. Merchantable timber (conifers) may not be cut for firewood without BLM authorization. Wood may not be removed from your claim without BLM authorization.

Topsoil

All excavations should have all productive topsoil (usually the top 6 to 12 inches) first stripped, stockpiled and protected from erosion for use in future reclamation. This also includes removal of topsoil before the establishment of mining waste dumps and tailings ponds if the waste material will be left in place during reclamation.

Roads

Existing roads and trails should be used as much as possible. Temporary roads are to be constructed to a minimum width and with minimum cuts and fills. When constructing a permanent new road or blading an existing road, follow the directions given in Minimum Standards for a Single Lane Road.

California Fish & Game and Water Quality Control Board

When mining will be in or near bodies of water, or sediment will be discharged, contact these agencies. It is the miner's responsibility to obtain any needed suction dredging, 1603 stream bed alteration, or water discharge permits. Copies should be provided to the BLM if a Notice or Plan of Operations is needed.

Claim Monuments

Due to the history of small wildlife deaths, plastic pipe greater than 2 inches in diameter should not be used for claim staking. Existing plastic pipe monuments must have all openings permanently closed. Upon loss or abandonment of the claim, all plastic pipe must be removed.

Drill Sites

Exploratory drill sites should be located next to or on existing roads when possible. Do not block public access. When drill sites have to be bladed, the size of the disturbance should be as small as needed.

Dust & Erosion Control

While in operation, and during periods of temporary shut-down, exposed ground surfaces, susceptible to erosion, will need to be protected. This can be done with seeding, mulching, installation of water diversions, and routine watering of dust producing surfaces.

Fire Safety

All State fire regulations must be followed, including obtaining a campfire permit and a blasting permit if

needed. All internal combustion engines must be equipped with approved spark arresters.

Fuel & Oil Storage

Stored fuel and lubricants, in excess of 55 gallons, must be provided with a secondary means of containing all of the fluids, with sufficient freeboard for added precipitation and runoff. Impervious dikes, pits and ditches leading to sealed sumps are commonly used for this purpose. All storage facilities should be located as far away from waterways as possible.

Safety & Public Exclusion

The general public may not be excluded from your mining claim. In the interest of safety, the general public can be restricted only from specific dangerous areas (underground mines, open pits or heavy equipment) by erecting fences, gates and warning signs. It is your responsibility to protect the public from your mining hazards. Gates may be installed on existing roads only with BLM approval.

Sewage

Self-contained or chemical toilets are to be used whenever possible and their contents disposed of at approved dump stations. An exception to this is under primitive conditions for 3 days or less, human waste and toilet paper may be buried in "cat holes" six inches deep and at least 150 horizontal feet from any water source. Permanent facilities, if needed, must have county and BLM approval.

Outhouses and uncontained pit toilets are generally no longer allowed.

Structures & Occupancy

Any needed structures should be temporary in nature when possible. Occupancy or camping on public land, in excess of 14 days per calendar year, must be reasonably incident to and required for mining operations and will require either a Notice or Plan of Operations.

Suction Dredging

Filing of a Notice or Plan of Operations is not required for most operations. An exception to this is along the Shasta River where the use of a dredge with an intake of more than 3 inches will require a Plan of Operations. Dredge lines and cables must be flagged and kept at least six feet above floatable waters to protect boaters from possible injury. Don't forget your California Fish & Game dredging permit.

Tailings Ponds

California Dept of Water Resources "Guidelines for the Design and Construction of Small Embankment Dams" should be used if dams are to be constructed. Downstream dam faces should have a 3:1 (run:rise) to aid in reclamation. Settling ponds must be used to contain fines and any discharge must meet Water Quality Control Board standards.

Trash & Garbage

Trash may be burned on site, if allowed by the California Department of Forestry and Fire Protection. Unburned trash, garbage and used oil must be removed from public land and disposed of properly. Do not bury any trash, garbage, or hazardous wastes on public lands. Excessive accumulations of trash, debris, or inoperable equipment on public lands will not be tolerated.

RECLAMATION

Reclamation of all disturbed areas must be performed as soon as possible after mining permanently ceases. Reclamation may be postponed during 2 years of "non-operation" (when mining in an area stops), if future mining is scheduled to resume within 2 years. Minimal assessment work is considered "non-operation".

Equipment and Debris

All equipment, vehicles, structures, debris, and trash must be removed from the public lands, unless BLM authorization is given.

Backfilling & Recontouring.

The first steps in the revegatation of a disturbed site are backfilling excavations and reduction of high walls. Coarse rocky material should be replaced first, followed by medium and fine materials being placed on top. Recontouring means shaping the disturbed area so that it will blend in with the surrounding lands and minimize the possibility of erosion.

Seedbed Preparation

Recontouring should include preparation of an adequate seedbed. This is accomplished by ripping or disking compacted soils to a depth of at least 6" in rocky areas and at least 12" in less rocky areas. This should be done following the contour of the land to limit erosion. All stockpiled settling pond fines, and then topsoil, are spread evenly over the disturbed areas. On slopes, a good seedbed can be formed by driving a cat up and down the slope. Each track mark will be perpendicular to the slope and serve as a depression to collect seed and runoff. Wheeled tractors should not be used as they leave channels parallel to the slope that funnel runoff and cause erosion.

Fertilizer

Due to the poor nutrient value of mined soils, it is important to use a good fertilizer to insure maximum yield from the seeding mixture. The fertilizer should be spread at the rate of 500 lbs/acre and incorporated into the top 2" of soil before seeding and mulching. Fertilizer should not be allowed to enter streams. The recommended fertilizer is (16-20-0); ammonium phosphate with sulfur.

Seeding

BLM approved seeding prescription must be used to provide adequate revegetation for erosion control, wildlife habitat, and productive secondary uses of public land.

Seeding must be done from September 15 to October 31, to ensure that seed is in the ground before the first significant rains.

Seeding Methods

Broadcast seeding is preferable on smaller sites. When using a whirlybird type seed spreader, it is important to keep the different seeds well mixed to achieve even seed distribution. For the best results, a drag harrow should be pulled over the seeded area to cover the seed before mulching. Hydroseeding can be used on critical sites for rapid cover and erosion control on cut banks, fill slopes and any other disturbed areas. When applied, hydroseeding should not exceed 1/4" thick because excess weight can cause hydroseed to slide on slopes greater than 45 percent.

Mulch

Weed-free straw mulch should be applied at the rate of 2 tons/acre. On slopes greater than 35%, the mulch needs to be punched, netted, or blown on with a tackifier to hold the soil in place. Ryegrass straw should not be used because a toxic reaction with the seedlings inhibits growth.

Tree Replacement

Replacement of destroyed trees may be necessary with the planting of seedlings or container stock.

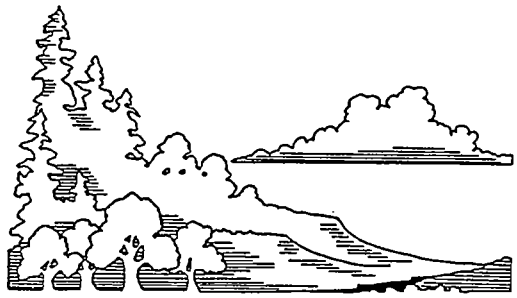
Roads

After mining is completed, all new roads shall be reclaimed, unless otherwise specified by the BLM. High walls and cutbanks are to be knocked down and blended with the surrounding landscape. Remove all culverts from drainage crossings and cut back the fill to the original channel. The roadbed should be ripped to a minimum depth of 12" to reduce compaction and provide a good seedbed. The road must then be fertilized, seeded and mulched. When necessary, waterbars are to be used to block access and provide drainage.

Tailings Ponds

The ponds should be allowed to dry out and the fines removed and spread with the topsoil (unless the fines contain toxic materials). They should then be reclaimed.

APPENDIX F
ASSESSMENT OF MINERAL POTENTIAL BY MANAGEMENT ALTERNATIVE



APPENDIX F

ASSESSMENT OF MINERAL POTENTIAL BY MANAGEMENT ALTERNATIVE

The following tables summarize the availability of public land and federal mineral estate by mineral resouce potential. The purpose of these tables is to assist the BLM is making land use allocations and inform the public, by quantifying and placing into perspective the amount of land that is being made available for mineral development relative to mineral potential. This quantitative portrayal is required by BLM policy to be included in the RMP.

The data is portrayed as the number of acres in the management areas and within the resource area as a whole by alternative, which are either "open", or "open with no surface occupancy", or "closed" to mineral exploration and development. This mineral development status is compared to the mineral potential of the lands by minerals type: locatable minerals, mineral materials, oil and gas, and geothermal. The definition of the various mineral potentials is described in BLM Manual 3031. Specific mineral information, including mineral potentials, are described in the Redding Resource Area Geology, Energy and Minerals (GEM) Report, available for review in the Redding Resource Area office.

Lands to be exchanged, offered for sale or transferred under the Recreation and Public Purposes Act are considered "open" since exchanges will be the preferred and most likely method of land tenure adjustment. The temporary segregation placed on lands prior to sale, exchange, or R&PP are not counted as lands closed to mineral development. Most of the private lands that are obtained by the U.S. Government in exchanges will be made available for mineral exploration and development, except in those areas where public lands are to be withdrawn from mineral entry. It is expected that, overall, the mineral potential of the offered private lands will be roughly equivalent to that of the selected public lands.

"Open with no surface occupancy" refers to a restriction placed on leasable mineral development activities where the land can be leased and the minerals can be extracted from under the land, but no surface disturbing activities can occur on the land surface. Directional (slant) drilling from adjacent land is commonly used in areas which are open with no surface occupancy.

"Closed" refers to lands which certain mineral development laws no longer apply. Lands may be closed by withdrawals, segregation, or land classification. There are also certain laws and regulations which define what specific lands will be closed to mineral development. Lands "closed" include: discretionary closures by the BLM (e.g. campgrounds and improvements), and non-discretionary closures by Congress (e.g. wilderness areas) and other agencies (e.g. Federal Energy Regulatory Commission power project withdrawals.

Lands currently withdrawn, which we have recommended to be opened, are considered to be "closed". Lands that we recommend to be withdrawn from mineral entry, are considered to be "closed".

Public land acreage calculations include all public surface/public minerals lands and private surface/public mineral lands. Some of the private surface/public minerals lands are not available for locatable mineral exploration and development due to a lack of authorizing regulations. These lands include: Small Tract Act patents and R&PP patents.

Acreage calculations are estimated to the nearest 100 acres.

Limestone is considered a locatable mineral in the RMP, even though it is a mineral material when not of high purity.

This RMP does not consider a "Resource Use" alternative in the Sacramento River Management Area. The table showing the Resource Area-wide impacts under the Resource Use alternative, uses the "No Action" alternative for the Sacramento River Management area.

PROPOSED ACTION

LOCATABLE MINERALS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	0	32200	2900	2500	0	37600
KLAMATH	36200	2100	4100	1000	0	43400
ISHI	92700	15100	2600	1600	0	112000
SHASTA	7700	20700	5400	11900	0	45700
TRINITY	3200	36500	2400	6200	0	48300
YOLLA BOLLY	49100	29200	3700	1000	0	83000
SAC. RIVER	10700	0	0	0	0	10700
TOTAL	**199600**	**135800**	**21100**	**24200**	**0**	**380700**

CLOSED (DISCRETIONARY)

SCOTT	0	100	0	0	0	100
KLAMATH	0	1100	1000	0	0	2100
ISHI	500	1000	0	1400	0	2900
SHASTA	0	100	100	100	0	300
TRINITY	0	300	0	200	0	500
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	500	100	100	0	0	700
TOTAL	**1000**	**2700**	**1200**	**1700**	**0**	**6600**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	200	0	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	300	0	0	0	300
SAC. RIVER	0	0	0	0	0	0
TOTAL	**5100**	**300**	**0**	**0**	**0**	**5400**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	0	32300	2900	2500	0	37700
KLAMATH	36200	3200	5100	1000	0	45500
ISHI	93400	16100	2600	3000	0	115100
SHASTA	7700	20800	5500	1200	0	46000
TRINITY	8100	36800	2400	6400	0	53700
YOLLA BOLLY	49100	29500	3700	1000	0	83300
SAC. RIVER	11200	100	100	0	0	11400
TOTAL	**205700**	**138800**	**22300**	**25900**	**0**	**392700**

PROPOSED ACTION

MINERAL MATERIALS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	0	37500	200	0	0	37700
KLAMATH	0	45100	0	100	0	45200
ISHI	0	113900	100	100	0	114100
SHASTA	0	45800	0	200	0	46000
TRINITY	0	46500	2100	200	0	48800
YOLLA BOLLY	0	83300	0	0	0	83300
SAC. RIVER	0	9100	500	1800	0	11400
TOTAL	**0**	**381200**	**2900**	**2400**	**0**	**386500**

CLOSED (DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	300	0	0	0	300
ISHI	0	800	0	0	0	800
SHASTA	0	0	0	0	0	0
TRINITY	0	0	0	0	0	0
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**1100**	**0**	**0**	**0**	**1100**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	0	200	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	0	4900	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**5100**	**0**	**0**	**0**	**5100**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	0	37500	200	0	0	37700
KLAMATH	0	45400	0	100	0	45500
ISHI	0	114900	100	100	0	115100
SHASTA	0	45800	0	200	0	46000
TRINITY	0	51400	2100	200	0	53700
YOLLA BOLLY	0	83300	0	0	0	83300
SAC. RIVER	0	9100	500	1800	0	11400
TOTAL	**0**	**387400**	**2900**	**2400**	**0**	**392700**

PROPOSED ACTION

OIL & GAS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	37700	0	0	0	0	37700
KLAMATH	10900	29100	0	0	0	40000
ISHI	18400	76400	5900	0	8700	109400
SHASTA	43300	200	0	0	0	43500
TRINITY	46900	0	0	0	0	46900
YOLLA BOLLY	45400	32600	5200	100	0	83300
SAC. RIVER	0	3700	3300	0	0	7000
TOTAL	**202600**	**142000**	**14400**	**100**	**8700**	**367800**

OPEN (NO SURFACE OCCUPANCY)

SCOTT	0	0	0	0	0	0
KLAMATH	200	1200	0	0	0	1400
ISHI	2800	1000	300	0	1400	5500
SHASTA	2200	0	0	0	0	2200
TRINITY	1900	0	0	0	0	1900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	2700	1500	200	0	4400
TOTAL	**7100**	**4900**	**1800**	**200**	**1400**	**15400**

CLOSED (DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	4000	0	0	0	4000
ISHI	0	0	0	0	0	0
SHASTA	0	0	0	0	0	0
TRINITY	0	0	0	0	0	0
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**4000**	**0**	**0**	**0**	**4000**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	100	0	0	0	0	100
ISHI	0	200	0	0	0	200
SHASTA	300	0	0	0	0	300
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**5300**	**200**	**0**	**0**	**0**	**5500**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	37700	0	0	0	0	37700
KLAMATH	11200	34300	0	0	0	45500
ISHI	21200	77600	6200	0	10100	115100
SHASTA	45800	200	0	0	0	46000
TRINITY	53700	0	0	0	0	53700
YOLLA BOLLY	45400	32600	5200	100	0	83300
SAC. RIVER	0	6400	4800	200	0	11400
TOTAL	**215000**	**151100**	**16200**	**300**	**10100**	**392700**

PROPOSED ACTION

GEOTHERMAL

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	37700	0	0	0	0	37700
KLAMATH	11200	0	28900	0	0	40100
ISHI	25100	60600	23700	0	0	109400
SHASTA	43600	200	0	0	0	43800
TRINITY	46900	0	0	0	0	46900
YOLLA BOLLY	45500	37800	0	0	0	83300
SAC. RIVER	0	7000	0	0	0	7000
TOTAL	**210000**	**105600**	**52600**	**0**	**0**	**368200**

OPEN (NO SURFACE OCCUPANCY)

SCOTT	0	0	0	0	0	0
KLAMATH	200	0	1200	0	0	1400
ISHI	2800	1000	1700	0	0	5500
SHASTA	2200	0	0	0	0	2200
TRINITY	1900	0	0	0	0	1900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	4400	0	0	0	4400
TOTAL	**7100**	**5400**	**2900**	**0**	**0**	**15400**

CLOSED (DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	4000	0	0	4000
ISHI	0	0	0	0	0	0
SHASTA	0	0	0	0	0	0
TRINITY	0	0	0	0	0	0
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**0**	**4000**	**0**	**0**	**4000**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	0	200	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**4900**	**200**	**0**	**0**	**0**	**5100**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	37700	0	0	0	0	37700
KLAMATH	11400	0	34100	0	0	45500
ISHI	27900	61800	25400	0	0	115100
SHASTA	45800	200	0	0	0	46000
TRINITY	53700	0	0	0	0	53700
YOLLA BOLLY	45500	37800	0	0	0	83300
SAC. RIVER	0	11400	0	0	0	11400
TOTAL	**222000**	**111200**	**59500**	**0**	**0**	**392700**

NO ACTION ALTERNATIVE

LOCATABLE MINERALS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	0	32200	2900	2500	0	37600
KLAMATH	36100	3100	4000	1000	0	44200
ISHI	92700	16100	2600	1500	0	112900
SHASTA	7700	20200	5000	12000	0	44900
TRINITY	3200	35700	2400	6200	0	47500
YOLLA BOLLY	48800	25800	3400	800	0	78800
SAC. RIVER	11200	100	100	0	0	11400
TOTAL	**199700**	**133200**	**20400**	**24000**	**0**	**377300**

CLOSED (DISCRETIONARY)

SCOTT	0	100	0	0	0	100
KLAMATH	100	100	1100	0	0	1300
ISHI	500	0	0	1500	0	2000
SHASTA	0	600	500	0	0	1100
TRINITY	0	1100	0	200	0	1300
YOLLA BOLLY	300	3400	300	200	0	4200
SAC. RIVER	0	0	0	0	0	0
TOTAL	**900**	**5300**	**1900**	**1900**	**0**	**10000**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	200	0	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	300	0	0	0	300
SAC. RIVER	0	0	0	0	0	0
TOTAL	**5100**	**300**	**0**	**0**	**0**	**5400**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	0	32300	2900	2500	0	37700
KLAMATH	36200	3200	5100	1000	0	45500
ISHI	93400	16100	2600	3000	0	115100
SHASTA	7700	20800	5500	12000	0	46000
TRINITY	8100	36800	2400	6400	0	53700
YOLLA BOLLY	49100	29500	3700	1000	0	83300
SAC. RIVER	11200	100	100	0	0	11400
TOTAL	**205700**	**138800**	**22300**	**25900**	**0**	**392700**

NO ACTION ALTERNATIVE

MINERAL MATERIALS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	0	37500	200	0	0	37700
KLAMATH	0	45400	0	100	0	45500
ISHI	0	114700	100	100	0	114900
SHASTA	0	45800	0	200	0	46000
TRINITY	0	46500	2100	200	0	48800
YOLLA BOLLY	0	83300	0	0	0	83300
SAC. RIVER	0	9100	500	1800	0	11400
TOTAL	**0**	**382300**	**2900**	**2400**	**0**	**387500**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	0	200	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	0	4900	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**5100**	**0**	**0**	**0**	**5100**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	0	37500	200	0	0	37700
KLAMATH	0	45400	0	100	0	45500
ISHI	0	114900	100	100	0	115100
SHASTA	0	45800	0	200	0	46000
TRINITY	0	51400	2100	200	0	53700
YOLLA BOLLY	0	83300	0	0	0	83300
SAC. RIVER	0	9100	500	1800	0	11400
TOTAL	**0**	**387400**	**2900**	**2400**	**0**	**392700**

NO ACTION ALTERNATIVE

OIL AND GAS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	37700	0	0	0	0	37700
KLAMATH	1100	34300	0	0	0	45300
ISHI	21200	77300	6200	0	9900	114600
SHASTA	44400	200	0	0	0	44600
TRINITY	48400	0	0	0	0	48400
YOLLA BOLLY	45400	32600	5200	100	0	83300
SAC. RIVER	0	6300	4500	0	0	10800
TOTAL	**198200**	**150700**	**15900**	**100**	**9900**	**374800**

OPEN (NO SURFACE OCCUPANCY)

SCOTT	0	0	0	0	0	0
KLAMATH	100	0	0	0	0	100
ISHI	0	100	0	0	200	300
SHASTA	1100	0	0	0	0	1100
TRINITY	400	0	0	0	0	400
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	100	300	200	0	600
TOTAL	**1600**	**200**	**300**	**200**	**200**	**2500**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	100	0	0	0	0	100
ISHI	0	200	0	0	0	200
SHASTA	300	0	0	0	0	300
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**5300**	**200**	**0**	**0**	**0**	**5500**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	37700	0	0	0	0	37700
KLAMATH	11200	34300	0	0	0	45500
ISHI	21200	77600	6200	0	10100	115100
SHASTA	45800	200	0	0	0	46000
TRINITY	53700	0	0	0	0	53700
YOLLA BOLLY	45400	32600	5200	100	0	83300
SAC. RIVER	0	6400	4800	200	0	11400
TOTAL	**215000**	**151100**	**16200**	**300**	**10100**	**392700**

NO ACTION ALTERNATIVE

GEOTHERMAL

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	37700	0	0	0	0	37700
KLAMATH	11300	0	34100	0	0	45400
ISHI	27900	61600	25100	0	0	114600
SHASTA	44700	200	0	0	0	44900
TRINITY	48400	0	0	0	0	48400
YOLLA BOLLY	45500	37800	0	0	0	83300
SAC. RIVER	0	10800	0	0	0	10800
TOTAL	**215500**	**110400**	**59200**	**0**	**0**	**385100**

OPEN (NO SURFACE OCCUPANCY)

SCOTT	0	0	0	0	0	0
KLAMATH	100	0	0	0	0	100
ISHI	0	0	300	0	0	300
SHASTA	1100	0	0	0	0	1100
TRINITY	400	0	0	0	0	400
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	600	0	0	0	600
TOTAL	**1600**	**600**	**300**	**0**	**0**	**2500**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	0	200	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**4900**	**200**	**0**	**0**	**0**	**5100**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	37700	0	0	0	0	37700
KLAMATH	11400	0	34100	0	0	45500
ISHI	27900	61800	25400	0	0	115100
SHASTA	45800	200	0	0	0	46000
TRINITY	53700	0	0	0	0	53700
YOLLA BOLLY	45500	37800	0	0	0	83300
SAC. RIVER	0	11400	0	0	0	11400
TOTAL	**222000**	**111200**	**59500**	**0**	**0**	**392700**

ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

LOCATABLE MINERALS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	0	0	32200	2900	2500	37600
KLAMATH	36100	3200	3100	1000	0	43400
ISHI	93200	15900	2600	2200	0	113900
SHASTA	7700	19700	4900	12000	0	44300
TRINITY	3200	36400	2400	5000	0	47000
YOLLA BOLLY	49100	29200	3700	1000	0	83000
SAC. RIVER	10800	0	0	0	0	10800
TOTAL	**200100**	**136600**	**19600**	**23700**	**0**	**389000**

CLOSED (DISCRETIONARY)

SCOTT	0	100	0	0	0	100
KLAMATH	100	0	2000	0	0	2100
ISHI	0	200	0	800	0	1000
SHASTA	0	1100	600	0	0	1700
TRINITY	0	400	0	1400	0	1800
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	400	100	100	0	0	600
TOTAL	**500**	**1900**	**2700**	**2200**	**0**	**7300**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	200	0	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	300	0	0	0	300
SAC. RIVER	0	0	0	0	0	0
TOTAL	**5100**	**300**	**0**	**0**	**0**	**5400**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	0	32300	2900	2500	0	37700
KLAMATH	36200	3200	5100	1000	0	45500
ISHI	93400	16100	2600	3000	0	115100
SHASTA	7700	20800	5500	12000	0	46000
TRINITY	8100	36800	2400	6400	0	53700
YOLLA BOLLY	49100	29500	3700	1000	0	83300
SAC. RIVER	11200	100	100	0	0	11400
TOTAL	**205700**	**138800**	**22300**	**25900**	**0**	**392700**

ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

MINERAL MATERIALS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	0	37500	200	0	0	37700
KLAMATH	0	43400	0	100	0	43500
ISHI	0	114700	100	100	0	114900
SHASTA	0	45800	0	200	0	46000
TRINITY	0	46500	2100	200	0	48800
YOLLA BOLLY	0	83300	0	0	0	83300
SAC. RIVER	0	9100	500	1800	0	11400
TOTAL	**0**	**380300**	**2900**	**2400**	**0**	**385600**

CLOSED (DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	2000	0	0	0	2000
ISHI	0	0	0	0	0	0
SHASTA	0	0	0	0	0	0
TRINITY	0	0	0	0	0	0
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**2000**		**0**	**0**	**2000**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	0	200	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	0	4900	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**5100**	**0**	**0**	**0**	**5100**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	0	37500	200	0	0	37700
KLAMATH	0	45400	0	100	0	45500
ISHI	0	114900	100	100	0	115100
SHASTA	0	45800	0	200	0	46000
TRINITY	0	51400	2100	200	0	53700
YOLLA BOLLY	0	83300	0	0	0	83300
SAC. RIVER	0	9100	500	1800	0	11400
TOTAL	**0**	**387400**	**2900**	**2400**	**0**	**392700**

ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

OIL AND GAS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	37700	0	0	0	0	37700
KLAMATH	10100	30200	0	0	0	40300
ISHI	20200	77400	6200	0	10100	113900
SHASTA	45300	200	0	0	0	45500
TRINITY	46900	0	0	0	0	46900
YOLLA BOLLY	45400	32600	5200	100	0	83300
SAC. RIVER	0	6300	4400	0	0	10700
TOTAL	**205600**	**146700**	**15800**	**100**	**10100**	**378300**

OPEN (NO SURFACE OCCUPANCY)

SCOTT	0	0	0	0	0	0
KLAMATH	1000	100	0	0	0	1100
ISHI	1000	0	0	0	0	1000
SHASTA	200	0	0	0	0	200
TRINITY	1900	0	0	0	0	1900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	100	400	200	0	700
TOTAL	**4100**	**200**	**400**	**200**	**0**	**4900**

CLOSED (DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	4000	0	0	0	4000
ISHI	0	0	0	0	0	0
SHASTA	0	0	0	0	0	0
TRINITY	0	0	0	0	0	0
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**4000**	**0**	**0**	**0**	**4000**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	100	0	0	0	0	100
ISHI	0	200	0	0	0	200
SHASTA	300	0	0	0	0	300
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**5300**	**200**	**0**	**0**	**0**	**5500**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	37700	0	0	0	0	37700
KLAMATH	11200	34300	0	0	0	45500
ISHI	21200	77600	6200	0	10100	115100
SHASTA	45800	200	0	0	0	46000
TRINITY	53700	0	0	0	0	53700
YOLLA BOLLY	45400	32600	5200	100	0	83300
SAC. RIVER	0	6400	4800	200	0	11400
TOTAL	**215000**	**151100**	**16200**	**300**	**10100**	**392700**

ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

GEOTHERMAL

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	37700	0	0	0	0	37700
KLAMATH	10500	0	30000	0	0	40500
ISHI	26900	61600	25400	0	0	113900
SHASTA	45600	200	0	0	0	45800
TRINITY	46900	0	0	0	0	46900
YOLLA BOLLY	45500	37800	0	0	0	83300
SAC. RIVER	0	10700	0	0	0	10700
TOTAL	**213100**	**110300**	**55400**	**0**	**0**	**378800**

OPEN (NO SURFACE OCCUPANCY)

SCOTT	0	0	0	0	0	0
KLAMATH	900	0	100	0	0	1000
ISHI	1000	0	0	0	0	1000
SHASTA	200	0	0	0	0	200
TRINITY	1900	0	0	0	0	1900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	700	0	0	0	700
TOTAL	**4000**	**700**	**100**	**0**	**0**	**4800**

CLOSED (DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	4000	0	0	4000
ISHI	0	0	0	0	0	0
SHASTA	0	0	0	0	0	0
TRINITY	0	0	0	0	0	0
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**0**	**4000**	**0**	**0**	**4000**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	0	200	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**4900**	**200**	**0**	**0**	**0**	**5100**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	37700	0	0	0	0	37700
KLAMATH	11400	0	34100	0	0	45500
ISHI	27900	61800	25400	0	0	115100
SHASTA	45800	200	0	0	0	46000
TRINITY	53700	0	0	0	0	53700
YOLLA BOLLY	45500	37800	0	0	0	83300
SAC. RIVER	0	11400	0	0	0	11400
TOTAL	**222000**	**111200**	**59500**	**0**	**0**	**392700**

ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE

LOCATABLE MINERALS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	0	32200	2900	2500	0	37600
KLAMATH	35100	700	1200	300	0	37300
ISHI	92100	15100	2600	1600	0	111400
SHASTA	7600	20700	5000	11800	0	45100
TRINITY	3200	34400	2400	5000	0	45000
YOLLA BOLLY	49100	28700	3300	1000	0	82100
SAC. RIVER	10700	0	0	0	0	10700
TOTAL	**197800**	**131800**	**17400**	**22200**	**0**	**369200**

CLOSED (DISCRETIONARY)

SCOTT	0	100	0	0	0	100
KLAMATH	1100	2500	3900	700	0	8200
ISHI	1100	1000	0	1400	0	3500
SHASTA	100	100	500	200	0	900
TRINITY	0	2400	0	1400	0	3800
YOLLA BOLLY	0	500	400	0	0	900
SAC. RIVER	500	100	100	0	0	700
TOTAL	**2800**	**6700**	**4900**	**3700**	**0**	**18100**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	200	0	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	300	0	0	0	300
SAC. RIVER	0	0	0	0	0	0
TOTAL	**5100**	**300**	**0**	**0**	**0**	**5400**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	0	32300	2900	2500	0	37700
KLAMATH	36200	3200	5100	1000	0	45500
ISHI	93400	16100	2600	3000	0	115100
SHASTA	7700	20800	5500	12000	0	46000
TRINITY	8100	36800	2400	6400	0	53700
YOLLA BOLLY	49100	29500	3700	1000	0	83300
SAC. RIVER	11200	100	100	0	0	11400
TOTAL	**205700**	**138800**	**22300**	**25900**	**0**	**392700**

ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE

MINERAL MATERIALS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	0	37500	200	0	0	37700
KLAMATH	0	45100	0	100	0	45200
ISHI	0	113900	100	100	0	114100
SHASTA	0	45800	0	200	0	46000
TRINITY	0	46500	2100	200	0	48800
YOLLA BOLLY	0	83300	0	0	0	83300
SAC. RIVER	0	9100	500	1800	0	11400
TOTAL	**0**	**381200**	**2900**	**2400**	**0**	**386500**

CLOSED (DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	300	0	0	0	300
ISHI	0	800	0	0	0	800
SHASTA	0	0	0	0	0	0
TRINITY	0	0	0	0	0	0
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**1100**	**0**	**0**	**0**	**1100**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	0	200	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	0	4900	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	5100	0	0	0	5100
TOTAL	**0**	**387400**	**2900**	**2400**	**0**	**392700**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	0	37500	200	0	0	37700
KLAMATH	0	45400	0	100	0	45500
ISHI	0	114900	100	100	0	115100
SHASTA	0	45800	0	200	0	46000
TRINITY	0	51400	2100	200	0	53700
YOLLA BOLLY	0	83300	0	0	0	83300
SAC. RIVER	0	9100	500	1800	0	11400
TOTAL	**0**	**387400**	**2900**	**2400**	**0**	**392700**

ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE

OIL AND GAS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	37700	0	0	0	0	37700
KLAMATH	5000	28100	0	0	0	33100
ISHI	17600	76500	5900	0	8700	108700
SHASTA	42700	200	0	0	0	42900
TRINITY	40500	0	0	0	0	40500
YOLLA BOLLY	44500	32600	5200	100	0	82400
SAC. RIVER	0	3700	3300	0	0	7000
TOTAL	**188000**	**141100**	**14400**	**100**	**8700**	**352300**

OPEN (NO SURFACE OCCUPANCY)

SCOTT	0	0	0	0	0	0
KLAMATH	6100	2200	0	0	0	8300
ISHI	3600	900	300	0	1400	6200
SHASTA	2800	0	0	0	0	2800
TRINITY	8300	0	0	0	0	8300
YOLLA BOLLY	900	0	0	0	0	900
SAC. RIVER	0	2700	1500	200	0	4400
TOTAL	**21700**	**5800**	**1800**	**200**	**1400**	**30900**

CLOSED (DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	4000	0	0	0	4000
ISHI	0	0	0	0	0	0
SHASTA	0	0	0	0	0	0
TRINITY	0	0	0	0	0	0
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**4000**	**0**	**0**	**0**	**4000**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	100	0	0	0	0	100
ISHI	0	200	0	0	0	210
SHASTA	0	0	0	0	0	0
TRINITY	0	0	0	0	0	0
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**4000**	**0**	**0**	**0**	**4000**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	37700	0	0	0	0	37700
KLAMATH	11200	34300	0	0	0	45500
ISHI	21200	77600	6200	0	10100	115100
SHASTA	45800	200	0	0	0	4600
TRINITY	53700	0	0	0	0	53700
YOLLA BOLLY	45400	32600	5200	100	0	83300
SAC. RIVER	0	6400	4800	200	0	11400
TOTAL	**215000**	**15100**	**16200**	**300**	**10100**	**392700**

ENHANCEMENT OF NATURAL AND CULTRUAL VALUES ALTERNATIVE

GEOTHERMAL

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	37700	0	0	0	0	37700
KLAMATH	5300	0	27900	0	0	33200
ISHI	24300	60600	23700	0	0	108600
SHASTA	43000	200	0	0	0	43200
TRINITY	40500	0	0	0	0	40500
YOLLA BOLLY	44600	37800	0	0	0	82400
SAC. RIVER	0	7000	0	0	0	7000
TOTAL	**195400**	**105600**	**51600**	**0**	**0**	**351600**

OPEN (NO SURRFACE OCCUPANCY)

SCOTT	0	0	0	0	0	0
KLAMATH	6100	0	2200	0	0	8300
ISHI	3600	1000	1700	0	0	6300
SHASTA	2800	0	0	0	0	2800
TRINITY	8300	0	0	0	0	8300
YOLLA BOLLY	900	0	0	0	0	900
SAC. RIVER	0	4400	0	0	0	4400
TOTAL	**21700**	**5400**	**3900**	**0**	**0**	**31000**

CLOSED (DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	4000	0	0	4000
ISHI	0	0	0	0	0	0
SHASTA	0	0	0	0	0	0
TRINITY	0	0	0	0	0	0
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER0	0	0	0	0	0	0
TOTAL	**0**	**0**	**4000**	**0**	**0**	**4000**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	0	200	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**4900**	**200**	**0**	**0**	**0**	**5100**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	37700	0	0	0	0	37700
KLAMATH	11400	0	34100	0	0	45500
ISHI	27900	61800	25400	0	0	115100
SHASTA	45800	200	0	0	0	46000
TRINITY	53700	0	0	0	0	53700
YOLLA BOLLY	45500	37800	0	0	0	83300
SAC. RIVER	0	11400	0	0	0	11400
TOTAL	**222000**	**111200**	**59500**	**0**	**0**	**392700**

RESOURCE USE WITH NATURAL VALUES CONSIDERATION ALTERNATIVE

LOCATABLE MINERALS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	0	32200	2900	2500	0	37600
KLAMATH	36200	2100	4100	1000	0	43400
ISHI	92700	15100	2600	1600	0	112000
SHASTA	7700	20700	5400	11900	0	45700
TRINITY	3200	36500	2400	6200	0	48300
YOLLA BOLLY	49100	28700	3200	900	0	81900
SAC. RIVER	10700	0	0	0	0	10700
TOTAL	**199600**	**135300**	**20600**	**24100**	**0**	**379600**

CLOSED (DISCRETIONARY)

SCOTT	0	100	0	0	0	100
KLAMATH	0	1100	1000	0	0	2100
ISHI	500	1000	0	1400	0	2900
SHASTA	0	100	100	100	0	300
TRINITY	0	300	0	200	0	500
YOLLA BOLLY	0	500	500	100	0	1100
SAC. RIVER	500	100	100	0	0	700
TOTAL	**1000**	**3200**	**1700**	**1800**	**0**	**7700**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	200	0	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	300	0	0	0	300
SAC. RIVER	0	0	0	0	0	0
TOTAL	**5100**	**300**	**0**	**0**	**0**	**5400**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	0	32300	2900	2500	0	37700
KLAMATH	36200	3200	5100	1000	0	45500
ISHI	93400	16100	2600	3000	0	115100
SHASTA	7700	20800	5500	1200	0	46000
TRINITY	8100	36800	2400	6400	0	53700
YOLLA BOLLY	49100	29500	3700	1000	0	83300
SAC. RIVER	11200	100	100	0	0	11400
TOTAL	**205700**	**138800**	**22300**	**25900**	**0**	**392700**

RESOURCE USE WITH NATURAL VALUES CONSIDERATION ALTERNATIVE

MINERAL MATERIALS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	0	37500	200	0	0	37700
KLAMATH	0	45100	0	100	0	45200
ISHI	0	113900	100	100	0	114100
SHASTA	0	45800	0	200	0	46000
TRINITY	0	46500	2100	200	0	48800
YOLLA BOLLY	0	83300	0	0	0	83300
SAC. RIVER	0	9100	500	1800	0	11400
TOTAL	**0**	**381200**	**2900**	**2400**	**0**	**386500**

CLOSED (DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	300	0	0	0	300
ISHI	0	800	0	0	0	800
SHASTA	0	0	0	0	0	0
TRINITY	0	0	0	0	0	0
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**1100**	**0**	**0**	**0**	**1100**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	0	200	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	0	4900	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**5100**	**0**	**0**	**0**	**5100**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	0	37500	200	0	0	37700
KLAMATH	0	45400	0	100	0	45500
ISHI	0	114900	100	100	0	115100
SHASTA	0	45800	0	200	0	46000
TRINITY	0	51400	2100	200	0	53700
YOLLA BOLLY	0	83300	0	0	0	83300
SAC. RIVER	0	9100	500	1800	0	11400
TOTAL	**0**	**387400**	**2900**	**2400**	**0**	**392700**

RESOURCE USE WITH NATURAL VALUES CONSIDERATION ALTERNATIVE

OIL AND GAS

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	37700	0	0	0	0	37700
KLAMATH	10900	29100	0	0	0	40000
ISHI	18400	76400	5900	0	8700	109400
SHASTA	43300	200	0	0	0	43500
TRINITY	46900	0	0	0	0	46900
YOLLA BOLLY	44300	32600	5200	1000	0	82200
SAC. RIVER	0	6300	4300	0	0	10600
TOTAL	**201500**	**144600**	**15400**	**100**	**8700**	**370300**

OPEN (NO SURFACE OCCUPANCY)

SCOTT	0	0	0	0	0	0
KLAMATH	200	1200	0	0	0	1400
ISHI	2800	1000	300	0	1400	5500
SHASTA	2200	0	0	0	0	2200
TRINITY	1900	0	0	0	0	1900
YOLLA BOLLY	1100	0	0	0	0	1100
SAC. RIVER	0	100	500	200	0	800
TOTAL	**8200**	**2300**	**800**	**200**	**1400**	**12900**

CLOSED (DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	4000	0	0	0	4000
ISHI	0	0	0	0	0	0
SHASTA	0	0	0	0	0	0
TRINITY	0	0	0	0	0	0
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**4000**	**0**	**0**	**0**	**4000**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	100	0	0	0	0	100
ISHI	0	200	0	0	0	200
SHASTA	300	0	0	0	0	300
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**5300**	**200**	**0**	**0**	**0**	**5500**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	37700	0	0	0	0	37700
KLAMATH	11200	34300	0	0	0	45500
ISHI	21200	77600	6200	0	10100	115100
SHASTA	45800	200	0	0	0	46000
TRINITY	53700	0	0	0	0	53700
YOLLA BOLLY	45400	32600	5200	100	0	83300
SAC. RIVER	0	6400	4800	200	0	11400
TOTAL	**215000**	**151100**	**16200**	**300**	**10100**	**392700**

RESOURCE USE WITH NATURAL VALUES CONSIDERATION ALTERNATIVES

GEOTHERMAL

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	37700	0	0	0	0	37700
KLAMATH	11200	0	28900	0	0	40100
ISHI	25100	60600	23700	0	0	109400
SHASTA	43600	200	0	0	0	43800
TRINITY	46900	0	0	0	0	46900
YOLLA BOLLY	44400	37800	0	0	0	82200
SAC. RIVER	0	10600	0	0	0	10600
TOTAL	**208900**	**109200**	**52600**	**0**	**0**	**370700**

OPEN (NO SURRFACE OCCUPANCY)

SCOTT	0	0	0	0	0	0
KLAMATH	200	0	1200	0	0	1400
ISHI	2800	1000	1700	0	0	5500
SHASTA	2200	0	0	0	0	2200
TRINITY	1900	0	0	0	0	1900
YOLLA BOLLY	1100	0	0	0	0	1100
SAC. RIVER	0	800	0	0	0	800
TOTAL	**8200**	**1800**	**2900**	**0**	**0**	**12900**

CLOSED (DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	4000	0	0	4000
ISHI	0	0	0	0	0	0
SHASTA	0	0	0	0	0	0
TRINITY	0	0	0	0	0	0
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**0**	**0**	**4000**	**0**	**0**	**4000**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	0	200	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER	0	0	0	0	0	0
TOTAL	**4900**	**200**	**0**	**0**	**0**	**5100**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	37700	0	0	0	0	37700
KLAMATH	11400	0	34100	0	0	45500
ISHI	27900	61800	25400	0	0	115100
SHASTA	45800	200	0	0	0	46000
TRINITY	53700	0	0	0	0	53700
YOLLA BOLLY	45500	37800	0	0	0	83300
SAC. RIVER	0	11400	0	0	0	11400
TOTAL	**222000**	**11200**	**59500**	**0**	**0**	**392700**

RESOURCE USE ALTERNATIVE

LOCATABLE MINERALS

* The Resource Use Alternative was not considered for the Sacramento River Management Area. The numbers used below for that management area are from the No Action Alternative.

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	0	32200	2900	2500	0	37600
KLAMATH	36100	3200	5100	1000	0	45400
ISHI	93200	16100	2500	2900	0	114700
SHASTA	7700	19700	4900	12000	0	44300
TRINITY	3200	36600	2400	6200	0	48400
YOLLA BOLLY	49100	29200	3700	1000	0	83000
SAC. RIVER *	11200	100	100	0	0	11400
TOTAL	**200500**	**137100**	**21600**	**25600**	**0**	**384800**

CLOSED (DISCRETIONARY)

SCOTT	0	100	0	0	0	100
KLAMATH	100	0	0	0	0	100
ISHI	0	0	100	100	0	200
SHASTA	0	1100	600	0	0	1700
TRINITY	0	200	0	200	0	400
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER *	0	0	0	0	0	0
TOTAL	**100**	**1400**	**700**	**300**	**0**	**2500**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	200	0	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	300	0	0	0	300
SAC. RIVER *	0	0	0	0	0	0
TOTAL	**5100**	**300**	**0**	**0**	**0**	**5400**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	0	32300	2900	2500	0	37700
KLAMATH	36200	3200	5100	1000	0	45500
ISHI	93400	16100	2600	3000	0	115100
SHASTA	7700	20800	5500	12000	0	46000
TRINITY	8100	36800	2400	6400	0	53700
YOLLA BOLLY	49100	29500	3700	1000	0	83300
SAC. RIVER *	11200	100	100	0	0	11400
TOTAL	**205700**	**138800**	**22300**	**25900**	**0**	**392700**

RESOURCE USE ALTERNATIVE

MINERAL MATERIALS

* The Resource Use Alternative was not considered for the Sacramento River Management Area. The numbers used below for that management area are from the No Action Alternative.

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	0	37500	200	0	0	37700
KLAMATH	0	45400	0	100	0	45500
ISHI	0	114700	100	100	0	114900
SHASTA	0	45800	0	200	0	46000
TRINITY	0	46500	2100	200	0	48800
YOLLA BOLLY	0	83300	0	0	0	83300
SAC. RIVER *	0	9100	500	1800	0	11400
TOTAL	**0**	**382300**	**2900**	**2400**	**0**	**387600**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	0	200	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	0	4900	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER *	0	0	0	0	0	0
TOTAL	**0**	**5100**	**0**	**0**	**0**	**5100**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	0	37500	200	0	0	37700
KLAMATH	0	45400	0	100	0	45500
ISHI	0	114900	100	100	0	115100
SHASTA	0	45800	0	200	0	46000
TRINITY	0	51400	2100	200	0	53700
YOLLA BOLLY	0	83300	0	0	0	83300
SAC. RIVER *	0	9100	500	1800	0	11400
TOTAL	**0**	**387400**	**2900**	**2400**	**0**	**392700**

RESOURCE USE ALTERNATIVE

OIL AND GAS

* The Resource Use Alternative was not considered for the Sacramento River Management Area. The numbers used below for that management area are from the No Action Alternative.

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	37700	0	0	0	0	37700
KLAMATH	11000	34200	0	0	0	45200
ISHI	20900	77400	6200	0	10100	114600
SHASTA	45300	200	0	0	0	45500
TRINITY	48400	0	0	0	0	48400
YOLLA BOLLY	45400	32600	5200	100	0	83300
SAC. RIVER *	0	6300	4500	0	0	10800
TOTAL	**208700**	**150700**	**15900**	**100**	**10100**	**385500**

OPEN (NO SURFACE OCCUPANCY)

SCOTT	0	0	0	0	0	0
KLAMATH	100	100	0	0	0	200
ISHI	300	0	0	0	0	300
SHASTA	200	0	0	0	0	200
TRINITY	400	0	0	0	0	400
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER *	0	100	300	200	0	600
TOTAL	**1000**	**200**	**300**	**200**	**0**	**1700**

CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	100	0	0	0	0	100
ISHI	0	200	0	0	0	200
SHASTA	300	0	0	0	0	300
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER *	0	0	0	0	0	0
TOTAL	**5300**	**200**	**0**	**0**	**0**	**5500**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	37700	0	0	0	0	37700
KLAMATH	11200	34300	0	0	0	45500
ISHI	21200	77600	6200	0	10100	115100
SHASTA	45800	200	0	0	0	46000
TRINITY	53700	0	0	0	0	53700
YOLLA BOLLY	45400	32600	5200	100	0	83300
SAC. RIVER *	0	6400	4800	200	0	11400
TOTAL	**215000**	**151100**	**16200**	**300**	**10100**	**392700**

RESOURCE USE ALTERNATIVE

GEOTHERMAL

* The Resource Use Alternative was not considered for the Sacramento River Alternative. The numbers below for that management area are from the No Action Alternative.

OPEN

	NO POTENTIAL	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	UNKNOWN POTENTIAL	TOTAL
SCOTT	37700	0	0	0	0	37700
KLAMATH	11300	0	34000	0	0	45300
ISHI	27600	61600	25400	0	0	114600
SHASTA	45600	200	0	0	0	45800
TRINITY	48400	0	0	0	0	48400
YOLLA BOLLY	45500	37800	0	0	0	83300
SAC. RIVER *	0	10800	0	0	0	10800
TOTAL	**216100**	**110400**	**59400**	**0**	**0**	**385900**

OPEN (NO SURFACE OCCUPANCY)

SCOTT	0	0	0	0	0	0
KLAMATH	100	0	100	0	0	200
ISHI	300	0	0	0	0	300
SHASTA	200	0	0	0	0	200
TRINITY	400	0	0	0	0	400
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER *	0	600	0	0	0	600
TOTAL	**1000**	**600**	**100**	**0**	**0**	**1700**

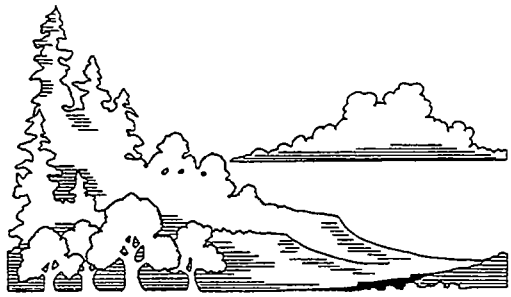
CLOSED (NON-DISCRETIONARY)

SCOTT	0	0	0	0	0	0
KLAMATH	0	0	0	0	0	0
ISHI	0	200	0	0	0	200
SHASTA	0	0	0	0	0	0
TRINITY	4900	0	0	0	0	4900
YOLLA BOLLY	0	0	0	0	0	0
SAC. RIVER *	0	0	0	0	0	0
TOTAL	**4900**	**200**	**0**	**0**	**0**	**5100**

SUMMARY OF POTENTIALS BY MANAGEMENT AREA

SCOTT	37700	0	0	0	0	37700
KLAMATH	11400	0	34100	0	0	45500
ISHI	27900	61800	25400	0	0	115100
SHASTA	45800	200	0	0	0	46000
TRINITY	53700	0	0	0	0	53700
YOLLA BOLLY	45500	37800	0	0	0	83300
SAC. RIVER *	0	11400	0	0	0	11400
TOTAL	**222000**	**111200**	**59500**	**0**	**0**	**392700**

APPENDIX G
FOREST LAND CLASSIFICATIONS



APPENDIX G

FOREST LAND CLASSIFICATIONS

The following tables outline the acres of "available commercial forest land" and "other" forest land in each management area by management category. Lands available for "intensive" management of forest products are areas where forest management is the primary use and where other resources or values occur but are not emphasized. "Restricted" management refers to areas where multiple use or other resource values are emphasized but timber harvest occurs. The "enhancement of other uses" category is where forest management activities are specifically for the benefit of other resource uses or values. No forest management is planned in the areas classified as "not available". Refer to Management Guidance and Decisions Common To All Alternatives, Forest and Woodland Management, for a further description of the categories.

The intensive, restricted, and enhancement of other uses categories combined constitute the available commercial forest land (ACFL) which is the acreage used to calculate an annual allowable harvest. Although the acreage in the enhancement of other uses category is included in the ACFL its contribution to the annual allowable harvest will be minimal due to the severe management restrictions (75-95% reduction from normal) placed on land in that category.

Since the true number of acres under management for each alternative is unknown the acres identified reflect existing acres only and do not account for the possible acreage fluctuations as a result of exchanges, sales or acquisitions. All "available commercial forest land" identified for disposal in the various alternatives is classified as "restricted" due to the limited forest management practices applied to those parcels. Due to the above conditions these tables should be used for comparative purposes only.

Using existing public land, and not accounting for future acquisitions, there are approximately 10,700 acres, remaining in the retention areas throughout the Resource Area, which are available for active timber management.

The "acreage trend" column is used to indicate the general trend in the available commercial forest land acreage for each alternative if fully implemented.

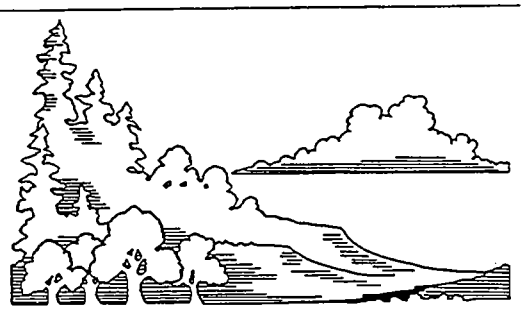
Timber Land Classifications / Acres

Management Area/ Alternative	intensive	restricted	enhancement of other uses	not available	acreage trend
SCOTT VALLEY					
no action	0	7201	0	9902	n/a
admin. adjustment	0	7031	170	9902	down
enhancement of other resources	0	0	6201	10902	down
resource use with natural values	0	5811	890	10402	up
resource use	1983	4830	1290	9000	down

Management Area/ Alternative	Timber Land Classifications / Acres				
	intensive	restricted	enhancement of other uses	not available	acreage trend
KLAMATH					
no action	0	1039	440	7489	n/a
admin.adjustment	0	959	520	7489	down
enhancement of other resources	0	0	1289	7679	up
resource use with natural values	0	699	680	7589	down
resource use	869	370	240	7489	down
SHASTA					
no action	0	4541	0	11411	n/a
admin. adjustment	0	4541	0	11411	down
enhancement of other resources	0	0	4341	11611	up
resource use with natural values	0	4191	350	11411	up
resource use	3500	1941	300	10211	up
TRINITY					
no action	0	15633	0	22118	n/a
admin. adjustment	0	13736	1897	22118	down
enhancement of other resources	0	0	15233	22518	up
resource use with natural values	0	13384	2049	22318	up
resource use	9150	4776	1898	21918	up

Management Area/ Alternative	Timber Land Classifications / Acres				
	intensive	restricted	enhancement of other uses	not available	acreage trend
ISHI					
no action	0	7706	0	15821	n/a
admin. adjustment	0	7206	500	15821	down
enhancement of other resources	0	0	7506	16021	down
resource use with natural values	0	6706	800	16021	down
resource use	3900	4126	140	15361	up
YOLLA BOLLY					
no action	0	2591	0	7700	n/a
admin. adjustment	0	2591	0	7700	down
enhancement of other resources	0	0	2291	8000	up
resource use with natural values	0	2091	300	7900	up
resource use	1600	1091	100	7500	up

APPENDIX H
SISKIYOU COUNTY
ECONOMIC IMPACT ASSESSMENT



APPENDIX H

SISKIYOU COUNTY ECONOMIC IMPACT ASSESSMENT

BACKGROUND

Since release of the Draft Redding Resource Management Plan and Environmental Impact Statement, a concern has been identified within Siskiyou County regarding the economic impact of the land tenure adjustments (land exchanges) identified within the proposed action. This concern has been evident with individual comments made during public meetings in Yreka, and with correspondence received from the Siskiyou County Administrator, the Siskiyou County Cattlemans Association, and others. The concern prompted the Board of Supervisors to pass Resolution 91-244 on November 5, 1991 regarding state or Federal land acquisitions within the County. Article 3 of the resolution prompts agencies to consider economic impacts of land acquisitions during their project planning in conformance with NEPA and CEQA.

Furthermore, the Siskiyou County Board of Supervisors has recently appointed a land use committee to develop an Interim Plan guiding Federal and state land managing agencies in the development of land use plans. The Committee has recommended to the Board that Federal agencies dispose of isolated tracts that are difficult to manage, and that a parity (at minimum) in land ownership status be maintained in the repositioning of public lands.

SETTING

Siskiyou County, which is the northern most portion of the Resource Area and encompasses both the Scott Valley and Klamath Management Areas, contains a population of approximately 45,000. The County is nearly 65% within public ownership containing U.S. Forest Service, U.S. Fish and Wildlife Service, National Park Service, Bureau of Land Management, and State of California managed land. Currently, the government is the major employer followed by the retail trade, services and manufacturing industries.

The County economy is strongly linked with the timber industry and the harvest of forest products from U.S. Forest Service (USFS) lands. Over the last 5 years, timber harvesting from USFS lands supported approximately 3,200 jobs each year and generated 8.3 million dollars each year for the Siskiyou County budget. The County's share of USFS timber receipts amounted to nearly 20 percent of the annual budget. With the listing of the northern spotted owl as threatened and subsequent conservation measures, the USFS expects harvest levels to drop by 62% thereby displacing approximately 1,200 jobs each year (U.S. Forest Service - FEIS for the Management of the Northern Spotted Owl in the National Forests, 1992). Because stumpage prices are expected to increase greatly, USFS predicts that revenue generated from the sale of forest products will contribute 9.7 million dollars each year for the County budget - a 16.9 percent increase from the last 5 years (U.S. Forest Service - FEIS for the Management of the Northern Spotted Owl in the National Forests, 1992). Although the budget may increase, the County will likely be obliged to provide increased services for dislocated timber workers.

Because the Federal government administers a majority of the land, additional public land acquisitions could have substantial impacts to County-raised revenue required to facilitate County-offered services. Revenue-poor counties are often unable to provide mandated services and programs, and are unable to strengthen the infrastructure required to attract new residents and business or support existing. Overall, rural counties continually contend with the delicate balance of available revenue versus mandated services.

ASSESSMENT TOPIC

Due to the concern identified within Siskiyou County and in conformance with the National Environmental Policy Act (NEPA), this assessment is being prepared to discuss probable impacts to the Siskiyou County economy. This assessment will also serve BLM in the estimation of County-wide cumulative, economic im-

pacts during individual land exchanges analyzed under NEPA. Topics addressed within this analysis include the impact upon the County tax base, the impact upon County property tax revenue, the impact upon payments to the County in lieu of taxes (PILT), the impact upon the ability of special districts to provide services, the impact upon employment opportunities and the impact upon agricultural and timber production.

IMPACT UPON THE COUNTY TAX BASE

Because the Federal government does not pay taxes to Siskiyou County, a reduction in the amount of privately owned land would limit the amount of property tax revenue collected under Proposition 13. This assessment will look at the net change in the amount of land held under public stewardship.

IMPACT UPON THE COUNTY PROPERTY TAX REVENUE

This assessment will quantify the amount of County property tax revenue which is lost or gained from land acquisitions and disposals identified within the land use management alternatives.

IMPACT UPON PAYMENTS MADE TO COUNTY (PILT)

Although the Federal government does not pay property taxes, the government does make payments to counties under the Payment In Lieu of Taxes Act (PILT) of 1976. This assessment will quantify the amount of PILT payments lost or gained under the land-use management alternatives.

IMPACT UPON SPECIAL DISTRICTS

County designated special districts may be impacted in cases where the County as a whole is not. These special districts provide many localized services such as road maintenance and education. This assessment will discuss the impact upon special districts from the land-use management alternatives.

IMPACT UPON EMPLOYMENT OPPORTUNITIES

This assessment will discuss the impact upon employment opportunities resulting from the land-use management alternatives.

IMPACT UPON AGRICULTURAL AND TIMBER PRODUCTION

This assessment will discuss the impact upon the County-wide grazing, crop and timber production industries. Secretary of Agriculture Memorandum 1827 prompts Federal agencies to consider impacts to prime or unique agricultural lands in conformance with NEPA.

ASSUMPTIONS AIDING THE ASSESSMENTS

Impact assessments are limited to current or proposed Redding Resource Area administered BLM lands and do not include approximately 38,736 acres of BLM lands administered through the Alturas Resource Area office of the Susanville District.

Impacts to the County economy are described individually by assessment topic and land-use management alterative. Impacts reflect the pure land-use management alternative within both management areas encompassed by the County. The proposed action is a combination of two land-use management alternatives - the Administrative Adjustment Alternative within the Scott Valley Management Area, and the Resource Use With Natural Values Consideration Alternative within the Klamath Management Area.

For purposes of analysis, it is assumed that full alternative implementation would occur including all identified land exchanges (disposals and acquisitions). Furthermore, it is assumed that all BLM land identified for disposal would subsequently be incorporated into the County. Quartz Hill, totalling approximately 2,000 acres, is assumed to remain under public ownership within the Administrative Adjustment and Proposed Action alternatives.

Federal payments to the County under the Payment in Lieu of Taxes Act of 1976 are assumed to remain at approximately $0.10 per acre of Federal land. This rate may increase in the future however, as the Senate is currently considering more than doubling the amount of payments made to local governments within S. 140.

To provide a discussion on the amount of tax revenue lost or gained due to land acquisitions and disposals described within the land-use management alternatives, taxable value estimates for different areas were assumed. These taxable value estimates were generated by considering the 1991 Siskiyou County tax rolls and

averaging taxable values across areas with current or foreseeable similar uses.

Areas containing current BLM land and proposed acquisition polygons were divided into 9 separate value areas with an assumed taxable value per acre ranging between $45.00 per acre within the Shasta and Klamath River Canyons and $355.00 per acre within the Yreka City limits. These values represent areas taxed using both the income approach and the value approach to determine the property tax revenue generated under an average 1.05% County-wide tax levy.

Because current taxable values on surrounding private lands are used to predict foreseeable taxable values on former BLM lands, the taxable value estimate on BLM land that is disposed of may be substantially lower than the market value of BLM land that is purchased in the future. For this reason, impacts identified within the property tax revenue assessment reflect the worst case situation.

County-wide private land values are not expected to fluctuate significantly due to the proposed repositioning of BLM administered lands. A majority of BLM lands identified for disposal is within remote areas, therefore disposal would not likely reduce the value of surrounding private lands that currently benefit from BLM open space externalities. Proposed acquisitions within the Shasta Valley Wetland area would likely increase the adjacent residential land values of the Lake Shastina vicinity.

The Soil Survey of Siskiyou County, Central Part (Soil Conservation Service), was used in assessing impacts to crop production. In consideration of this survey, the State has designated soil mapping units in relation to their suitability for crop production. Within the central part of Siskiyou County, approximately 116,605 acres of "important" and 36,740 acres of "prime" farmlands are found. Impacts from the land-use management alternatives are assessed in relation to these lands. Because many productive agricultural lands will not be offered to BLM or contain improvements precluding acquisition, impacts to crop production represent the worst case situation and assume that all lands identified within the Shasta Valley Wetland polygon would be acquired.

Timber Production Capability Classifications conducted by BLM on public lands and aerial photography interpretations were used to predict impacts to County-wide timber production. Lands were considered suitable for timber production (commercial forested land) if the soils could produce a minimum of 20 cubic feet of timber per acre, per year.

This analysis does not address the multiplier induced effect produced from private or public agricultural production. BLM believes that any particular multiplier effect related to slight reductions in private livestock grazing or crop production would be more than offset by increases in recreational related multipliers attendant with the land consolidations identified within several land-use management alternatives.

Finally, this analysis does not attempt to quantify BLM payments to the County for grazing receipts, nor does it discuss the economic effect of exchanging publicly owned commercial forested land into private hands. Readers should note that BLM pays the County nearly $1.00 for each animal unit month leased on public land, and that BLM does not pay the County a percentage of timber harvest receipts as does the U.S. Forest Service under the Twenty-Five Percent Fund Act.

IMPACTS OF THE PROPOSED ACTION ALTERNATIVE

Overall, this alternative proposed large land disposals within the Scott Valley Management Area and large land acquisitions within Shasta Valley located within the Klamath Management Area. Impacts are displayed in narrative form below and in graphical and tabular form at the end of this report.

IMPACTS UPON THE COUNTY TAX BASE

Currently, BLM Redding Resource Area administers approximately 57,300 acres within Siskiyou County. This alternative would dispose of 45,100 acres to the private sector, and 3,788 acres to the local, state and Federal government. BLM would acquire 32,030 acres of privately owned land resulting in a net increase in privately owned land within Siskiyou County of 13,070 acres (Table H-1).

Proposed private land acquisitions identified within this alternative would slightly reduce the taxable land base within the Yreka, Bogus, Big Springs, Butteville, Gazelle, Grenada, and Little Shasta tax areas. Proposed BLM land disposals within this land-use management alternative would slightly increase the taxable land base within the Etna and Butte Valley Unified tax areas, and greatly increase the taxable land base within the Fort Jones tax area.

IMPACTS UPON THE COUNTY PROPERTY TAX REVENUE

Overall, County-wide property tax revenue levied under Proposition 13 would decrease by approximately $5,110.00 annually (Figure H-1).

IMPACTS UPON PAYMENTS MADE TO THE COUNTY

Federal PILT payments to the County would decrease by approximately $1,307.00 annually due to proposed BLM land disposals (Figure H-2).

IMPACTS UPON SPECIAL DISTRICTS

Currently there are no tax levies or bonds that would be severely impacted through land acquisitions or land disposals located inside or outside the incorporated cities. BLM would dispose of, via the Recreation and Public Purposes Act (R&PP) or exchange, the Callahan refuse transfer site totalling approximately 2 acres and the Hornbrook refuse transfer site totalling approximately 80 acres. BLM would also consider the exchange or sale of the Humbug Gulch parcel totalling approximately 140 acres to the City of Yreka. This disposal would facilitate comprehensive administration over the City water tanks, pipelines and service roads which are currently permitted under a right-of-way.

IMPACTS UPON JOB OPPORTUNITIES

Land acquisitions within the Shasta Valley Wetland area and land disposals within the Scott Valley Management Area would not likely significantly alter County employment opportunities. Slightly reduced farming opportunities within the Shasta Valley Wetland area would be offset by increased ranching and forestry opportunities within the Scott Valley Management Area. Recreational related job opportunities would likely increase due to the acquisition of lands within the Shasta Valley Wetland area.

IMPACTS UPON AGRICULTURAL AND TIMBER PRODUCTION

Proposed land acquisitions within the Shasta Valley Wetland area totalling 17,400 acres would likely displace approximately 1,005 acres of State designated "important" agricultural land. No "prime" or "unique" agricultural land is identified within the Shasta Valley Wetland area. BLM land acquisitions would displace less than 1 percent of the state designated "important" farmland found within the County.

Livestock grazing would continue to occur on acquired Shasta Valley parcels, albeit at a reduced rate in order to restore natural wetlands and riparian conditions. Livestock grazing would likely increase on former BLM lands located within the Scott Valley Management Area. Overall, little net change in County-wide livestock production would be anticipated.

BLM would dispose of public lands containing approximately 7,600 acres of scattered commercial forested land. Private industry would likely increase production from these lands and increase the County-wide annual timber harvest.

SUMMARY

Overall, the County economy would likely benefit from implementation of this alternative. Although (under the worse case situation) County tax revenue and PILT payments may slightly decline, local residents would benefit greatly from increased recreational usage from less BLM land. County-wide agricultural production would not likely decline because most of the productive ranching and cropland identified for acquisition would not be offered to BLM and, therefore, not acquired by BLM. BLM parcels identified for disposal containing commercial forests or range lands would likely sustain production once acquired by the private sector. Finally, because BLM would work closely with County government in the implementation of this alternative, local needs would be strongly considered.

IMPACTS OF THE RESOURCE USE ALTERNATIVE

Overall, this alternative proposed moderate land acquisitions and disposals within the Scott Valley Management Area and moderate land acquisitions and disposals within the Klamath Management Area. Impacts are displayed in narrative form below and graphical and tabular form at the end of this appendix.

IMPACTS UPON THE COUNTY TAX BASE

Currently, BLM administers approximately 57,300 acres within Siskiyou County. This alternative would dispose of 38,558 acres to the private sector, and 3,382 acres to the local, state and Federal government. BLM would acquire 20,780 acres of privately owned land

resulting in a net increase in privately owned land within Siskiyou County of 17,778 acres (Table H-1).

Proposed private land acquisitions identified within this alternative would slightly reduce the taxable land base within the Etna tax area. Proposed BLM land disposals within this alternative would slightly increase the taxable land base within the Yreka, Hornbrook, Fort Jones, Bogus, Butte Valley Unified and Big Springs tax areas.

IMPACTS UPON THE COUNTY PROPERTY TAX REVENUE

Overall, County-wide property tax revenue levied under Proposition 13 would increase by approximately $18,540.00 annually (Figure H-1).

IMPACTS UPON PAYMENTS MADE TO THE COUNTY

Federal payments to the County would decrease by approximately $1,777.80 annually due to proposed BLM land disposals (Figure H-2).

IMPACTS UPON SPECIAL DISTRICTS

Currently there are no tax levies or bonds that would be severely impacted through land acquisitions or land disposals located inside or outside the incorporated cities. BLM would dispose of, via the Recreation and Public Purposes Act (R&PP) or exchange, the Callahan refuse transfer site totalling approximately 2 acres and the Hornbrook refuse transfer site totalling approximately 80 acres. BLM would also consider the exchange or sale of the Humbug Gulch parcel totalling approximately 140 acres to the City of Yreka. This disposal would facilitate comprehensive administration over the City water tanks, pipelines and service roads which are currently permitted under a right-of-way.

IMPACTS UPON JOB OPPORTUNITIES

Proposed BLM acquisitions totalling 14,960 acres near Noyes Valley should not reduce the amount of ranching and forestry related job opportunities because BLM would emphasize these types of uses on acquired lands.

IMPACTS UPON AGRICULTURAL AND TIMBER PRODUCTION

Proposed BLM land acquisitions totalling 20,780 acres within the Scott Valley Management Area would not likely have any significant impacts to County-wide timber or livestock production. BLM would dispose of approximately 3,300 acres of scattered commercial forested land within the Scott Valley Management Area and would acquire approximately 3,800 acres of consolidated commercial forested land. Because BLM would maximize timber production on acquired commercial forested land, County-wide timber production would remain in parity.

SUMMARY

Overall, the County economy would likely benefit from implementation of this alternative. Public land consolidation within the Noyes Valley/McConaughy Gulch area and subsequent access acquisition would concentrate consumptive uses, such as timber production and livestock grazing, and reduce BLM administrative costs. Recreational usage, cultural sites, wildlife, and amenity values associated with public lands would likely suffer in areas emphasizing consumptive uses. County property tax revenue would slightly increase, although PILT payments would slightly decline. Finally, because BLM would work closely with County government in the implementation of this alternative, local needs would be strongly considered.

IMPACTS OF THE RESOURCE USE WITH NATURAL VALUES CONSIDERATION ALTERNATIVE

Overall, this alternative proposed large land acquisitions within the Scott Valley and Klamath management areas. Impacts are displayed in narrative form below and in graphical and tabular form at the end of this appendix.

IMPACTS UPON THE COUNTY TAX BASE

Currently, BLM administers approximately 57,300 acres within Siskiyou County. This alternative would dispose of 27,468 acres to the private sector, and 3,788 acres to the local, state and Federal government. BLM would acquire 113,800 acres of privately owned land resulting in a net reduction of privately owned land within Siskiyou County of 86,332 acres (Table H-1).

Proposed private land acquisitions identified within this alternative would slightly reduce the taxable land base within the Etna, Yreka, Hornbrook, Bogus, Big Springs, Butteville, Gazelle, Grenada and Little Shasta tax areas; and greatly reduce the taxable land base within the Fort

Jones tax area. Proposed BLM land disposals within this alternative would slightly increase the taxable land base within the Butte Valley tax area.

IMPACTS UPON THE COUNTY PROPERTY TAX REVENUE

Overall, County-wide property tax revenue levied under Proposition 13 would decrease by approximately $144,140.00 annually (Figure H-1).

IMPACTS UPON PAYMENTS MADE TO THE COUNTY

Federal payments to the County would increase by approximately $8,633.20 annually due to proposed BLM land acquisitions (Figure H-2).

IMPACTS UPON SPECIAL DISTRICTS

Currently there are no tax levies or bonds that would be severely impacted through land acquisitions or land disposals located inside or outside the incorporated cities. BLM would dispose of, via the Recreation and Public Purposes Act (R&PP) or exchange, the Callahan refuse transfer site totalling approximately 2 acres and the Hornbrook refuse transfer site totalling approximately 80 acres. BLM would also consider the exchange or sale of the Humbug Gulch parcel totalling approximately 140 acres to the City of Yreka. This disposal would facilitate comprehensive administration over the City water tanks, pipelines and service roads which are currently permitted under a right-of-way.

IMPACTS UPON JOB OPPORTUNITIES

Land acquisitions within the Shasta Valley Wetland area and the Scott Valley Management Area would have slight negative impacts to the timber and ranching employment industries when viewed cumulatively. Significant amounts of privately owned commercial forested land would be acquired by BLM thereby displacing dependent occupations (eg. private foresters). Recreational related job opportunities would likely increase due to the acquisition of lands within the Shasta Valley Wetland area.

IMPACTS UPON AGRICULTURAL AND TIMBER PRODUCTION

Proposed land acquisitions within the Shasta Valley Wetland area totalling 17,400 acres would likely displace approximately 1,005 acres of State designated "important" agricultural land. No "prime" or "unique" agricultural land is identified within the Shasta Valley Wetland area. BLM land acquisitions would displace less than 1 percent of the state designated "important" farmland found within the County.

Livestock grazing would continue to occur on acquired Shasta Valley parcels albeit at a reduced rate in order to restore natural wetlands and riparian areas. Similarly, livestock grazing would likely decrease on acquired private lands within the Scott Valley Management Area. Overall, a moderate reduction in County-wide livestock production would be anticipated.

BLM would dispose of approximately 3,200 acres of scattered commercial forested land within the Scott Valley Management Area and acquire approximately 18,800 acres of consolidated commercial forested land. BLM would not maximize timber production within this alternative and would likely reduce annual, County-wide timber production.

SUMMARY

Implementation of this alternative would have noticeable negative impacts to the County economy. Massive private land acquisitions within the Noyes Valley/McConaughy Gulch area with little BLM land identified for disposal would reduce County property tax revenue (in the worse case situation) significantly. Increased PILT contributions and recreational usage on acquired parcels within the Noyes Valley/McConaughy Gulch and Shasta Valley Wetland area would slightly alleviate tax base losses. Livestock grazing and timber production would slightly decline during a period in which private jobs are currently stressed. Finally, BLM would attempt to work with the County in reducing negative local impacts, but current County conviction is to dispose of scattered parcels of unmanageable Federal land rather than acquire surrounding lands to augment the manageability of such parcels.

IMPACTS OF THE ENHANCEMENT OF NATURAL AND CULTURAL VALUES ALTERNATIVE

Overall, this alternative identified massive land acquisitions within Noyes Valley, the Shasta Valley Wetlands, the Shasta and Klamath River Canyons, the Upper Klamath River and Horseshoe Ranch. Impacts are displayed in narrative form below, and in graphical and tabular form at the end of this appendix.

IMPACTS UPON THE COUNTY TAX BASE

Currently, BLM administers approximately 57,300 acres within Siskiyou County. This alternative would dispose of 20,343 acres to the private sector, and 1,862 acres to the local, state and Federal government. BLM would acquire 130,694 acres of privately owned land resulting in a net reduction of privately owned land within Siskiyou County of 110,351 acres (Table H-1).

Proposed private land acquisitions identified within this alternative would slightly reduce the taxable land base within the Etna, Big Springs, Butteville, Gazelle, Bogus, Grenada and Little Shasta tax areas; and greatly reduce the taxable land base within the Fort Jones and Hornbrook tax areas. Proposed BLM land disposals within this alternative would slightly increase the taxable land base within the Yreka and Butte Valley Unified tax areas.

IMPACTS UPON THE COUNTY PROPERTY TAX REVENUE

Overall, County-wide property tax revenue levied under Proposition 13 would decrease by approximately $153,510.00 annually (Figure H-1).

IMPACTS UPON PAYMENTS MADE TO THE COUNTY

Federal payments to the County would increase by approximately $11,035.10 annually due to proposed BLM land acquisitions (Figure H-2).

IMPACTS UPON SPECIAL DISTRICTS

Currently there are no tax levies or bonds that would be severely impacted through land acquisitions or land disposals located inside or outside the incorporated cities. BLM would dispose of, via the Recreation and Public Purposes Act (R&PP) or exchange, the Callahan refuse transfer site totalling approximately 2 acres and the Hornbrook refuse transfer site totalling approximately 80 acres. BLM would also consider the exchange or sale of the Humbug Gulch parcel totalling approximately 140 acres to the City of Yreka. This disposal would facilitate comprehensive administration over the City water tanks, pipelines and service roads which are currently permitted under a right-of-way.

IMPACTS UPON JOB OPPORTUNITIES

Land acquisitions within the Shasta Valley Wetland area and within the Scott Valley Management Area would have slight negative impacts to the agricultural employment industry when viewed cumulatively. Significant amounts of privately owned commercial forested land would be acquired by BLM thereby displacing dependent occupations (eg. private foresters). Recreational related job opportunities would likely increase due to the acquisition of lands within the Shasta Valley Wetland area.

IMPACTS UPON AGRICULTURAL AND TIMBER PRODUCTION

Proposed land acquisitions within the Shasta Valley Wetland area totalling 30,770 acres would likely displace approximately 1,980 acres of State designated "important" agricultural land. No "prime" or "unique" agricultural land is identified within the Shasta Valley Wetland area. BLM land acquisitions would displace 1.7 percent of the state designated "important" farmland found within the County.

Livestock grazing would continue to occur on acquired Shasta Valley parcels, albeit at a reduced rate in order to restore natural wetlands and riparian conditions. Similarly, livestock grazing would likely decrease on acquired private lands within the Scott Valley Management Area. Overall, a moderate reduction in County wide livestock production would be anticipated.

BLM would dispose of approximately 4,300 acres of scattered commercial forested land and acquire approximately 15,900 acres of consolidated commercial forested land within the Scott Valley Management Area. Because BLM would greatly reduce annual harvest levels on acquired private lands, County-wide annual timber production would be noticeably reduced.

SUMMARY

Implementation of this alternative would have noticeable negative impacts to the County economy. Massive private land acquisitions within Noyes Valley/McConaughy Gulch, Shasta and Klamath River Canyons, Upper Klamath River, Horseshoe Ranch and the Shasta Valley Wetland areas with little BLM land identified for disposal would reduce County property tax revenue (in the worse case situation) significantly. Increased PILT contributions and recreational usage on acquired parcels would slightly alleviate tax base losses. Livestock

grazing and timber production would slightly decline during a period in which private jobs are currently stressed. Finally, BLM would attempt to work with the County in reducing negative local impacts, but current County conviction is to dispose of scattered parcels of unmanageable Federal land rather than acquire surrounding lands to augment the manageability of such parcels.

IMPACTS OF THE ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

Overall, this alternative proposed massive land disposals within both the Scott Valley and Klamath management areas. Impacts are displayed in narrative form below and in graphical and tabular form at this appendix.

IMPACTS UPON THE COUNTY TAX BASE

Currently, BLM administers approximately 57,300 acres within Siskiyou County. This alternative would dispose of 46,713 acres to the private sector, and 3,690 acres to the local, state and Federal government. BLM would acquire 11,010 acres of privately owned land resulting in a net increase in privately owned land within Siskiyou County of 35,703 acres (Table H-1).

Proposed BLM land disposals identified within this alternative would slightly increase the taxable land base within the Etna, Yreka, Butte Valley Unified and Big Springs tax areas; and greatly increase the taxable land base within the Fort Jones tax area.

IMPACTS UPON THE COUNTY PROPERTY TAX REVENUE

Overall, County-wide property tax revenue levied under Proposition 13 would increase by approximately $50,290.00 annually (Figure H-1).

IMPACTS UPON PAYMENTS MADE TO THE COUNTY

Federal PILT payments to the County would decrease by approximately $3,570.30 annually due to proposed BLM land disposals (Figure H-2).

IMPACTS UPON SPECIAL DISTRICTS

Currently there are no tax levies or bonds that would be severely impacted through land acquisitions or land disposals located inside or outside the incorporated cities. BLM would dispose of, via the Recreation and Public Purposes Act (R&PP) or exchange, the Callahan refuse transfer site totalling approximately 2 acres and the Hornbrook refuse transfer site totalling approximately 80 acres. BLM would also consider the exchange or sale of the Humbug Gulch parcel totalling approximately 140 acres to the City of Yreka. This disposal would facilitate comprehensive administration over the City water tanks, pipelines and service roads which are currently permitted under a right-of-way.

IMPACTS UPON JOB OPPORTUNITIES

Land disposals may slightly improve ranching, forestry related and real estate development opportunities within the County. Recreational dependent industries would likely suffer from reductions in public land within the Scott Valley Management Area.

IMPACTS UPON AGRICULTURAL PRODUCTION

Proposed land disposals totalling approximately 28,000 acres within the Scott Valley Management Area may slightly increase the amount of timber and livestock production occurring within the County. BLM would dispose of approximately 8,700 acres of scattered commercial forested land within the County. Private industry would likely increase production from these lands and increase the County-wide annual timber harvest.

SUMMARY

Overall, implementation of this alternative would likely have little impact to the County economy. Massive public land disposals would increase County tax revenue, private investment ventures and timber production, but slightly reduce County PILT payments and greatly reduce recreational opportunities. Although, BLM would work with the County in reducing local impacts, traditional recreational uses, wildlife habitat, cultural sites, and amenity values associated with BLM land would suffer greatly.

Table H-1

Disposition of Public and Private Lands

Due to Final RMP Alternatives

Alternative in Final RMP	BLM Acquisition	BLM Disposals To Private	Public	Net Change In Private Acres
Proposed Action Alternative	32,030	45,100	3,788	+13,070
Administrative Adjustment	11,010	46,713	3,690	+35,703
Enhancement of Natural..	130,694	20,343	1,862	-110,371
Resource Use W/ Natural..	113,800	27,468	3,788	-86,332
Resource Use Alternative	20,780	38,558	3,382	+17,778

Table 1: Impacts upon the Siskiyou County Tax Base for each Land-Use Management Alternative identified within the Final Redding Resource Management Plan. All acreage identified assumes full alternative implementation.

FIGURE H-1

ANNUAL TAX REVENUE CHANGE

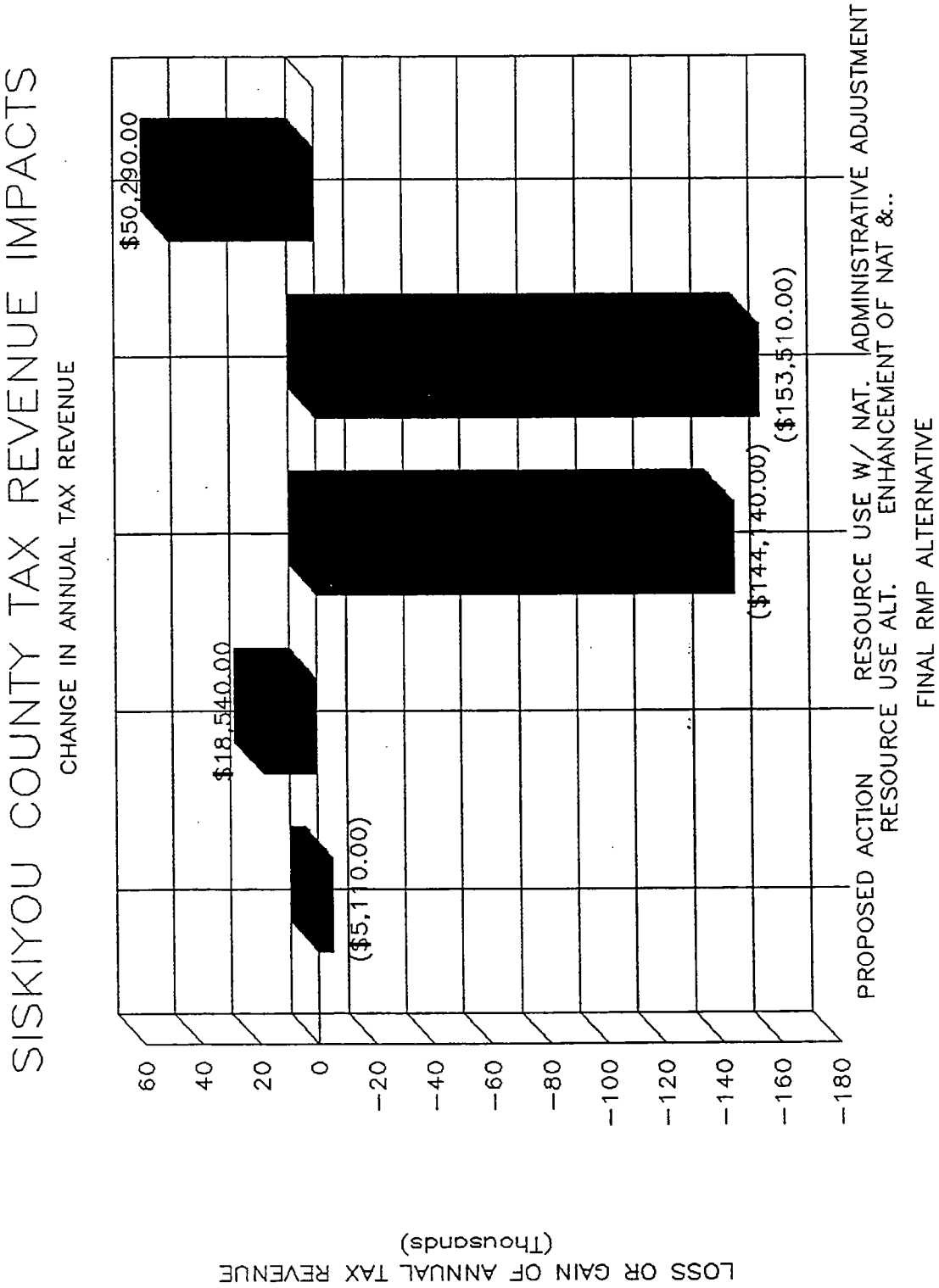
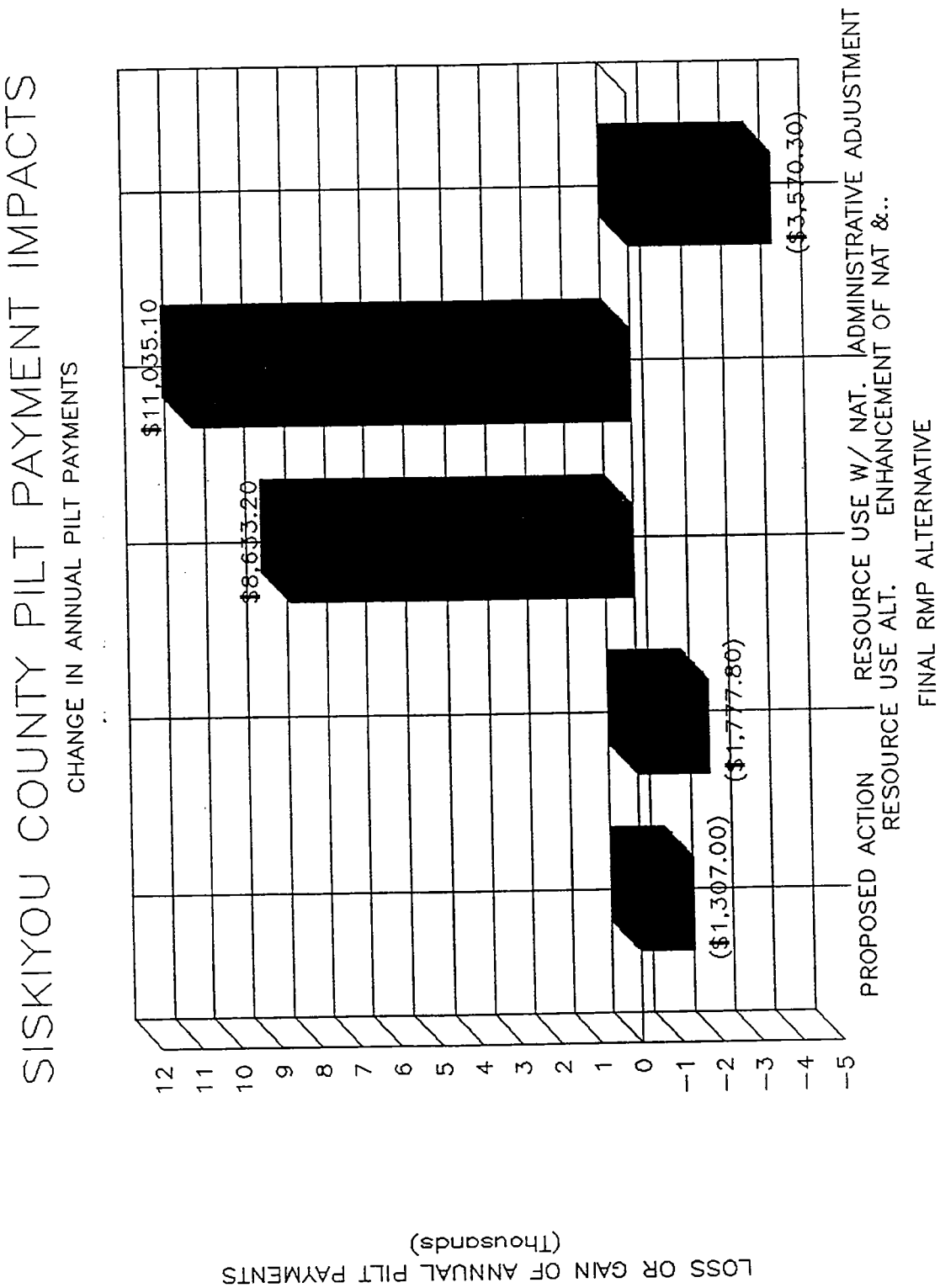
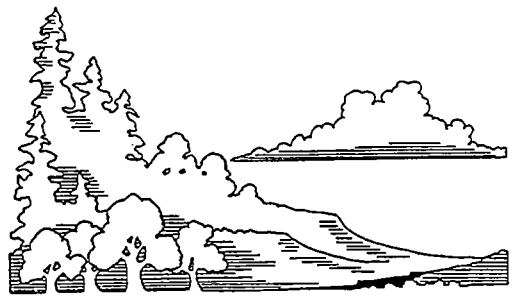


FIGURE H-2
ANNUAL PILT CHANGE





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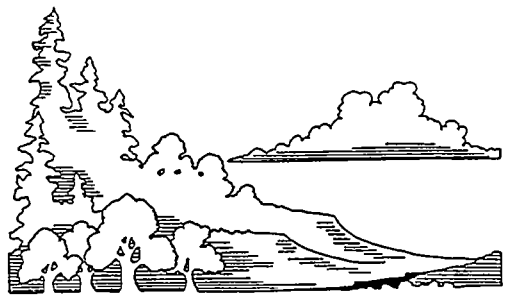


GLOSSARY

ACTIVITY PLAN:
A more detailed and specific plan or program of actions to implement RMP decisions regarding one or more resources over some specified time period. Examples include allotment management plan, recreation area management plan, habitat management plan and integrated resources activity plan.

ALLOTMENT:
An area of land assigned to one or more livestock operators for grazing livestock. Allotments generally consist of BLM land but may also include state-owned and private land. An allotment may include one or more separate pastures. Livestock numbers and seasons of use are specified for each allotment.

ALLOTMENT MANAGEMENT PLAN (AMP):
A livestock grazing management plan for a specific allotment based on multiple-use resource management objectives. The AMP considers livestock grazing in relation to other uses of the range and in relation to renewable resources - watershed, vegetation and wildlife. An AMP establishes the seasons of use, the number of livestock to be permitted on the range and the rangeland developments needed.

AMENITY VALUES:
A resource value which would not normally be developed for commodity production on the public lands such as non-game wildlife, scenic resources, and primitive recreation.

ANADROMOUS SALMONIDS:
Anadromous salmonids in this document refers to chinook and coho salmon and steelhead trout. Anadromous refers to the natural life cycle of these species requiring freshwater habitat for the egg laying to juvenile stages of development and estuary or ocean habitat for the primary growth stage culminating in mature adults which return to freshwater to spawn and repeat the cycle.

ANIMAL UNIT MONTH (AUM):
The amount of forage necessary for the complete sustenance of one cow, or its equivalent (one horse or five sheep, all over six months old) for one month; also, a unit of measurement of grazing privilege that represents the privilege of grazing one animal for a period of one month.

ARCHAEOLOGICAL RESOURCES:
Sites, areas, structures, objects, or other evidence of prehistoric or historic human activities.

ARCHAEOLOGICAL SITE:
Geographic locale containing structures, artifacts, material remains, and/or other evidence(s) of past human activity.

AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)
An area of public land that requires special management attention in order to protect and prevent irreparable damage to important historic, cultural or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.

ARRASTRE:
An early gold recovery device consisting of a stone-lined pit utilizing drag stones to grind the ore. Water was added as the stones were pulled around the pit. The resulting mud could be panned or sluiced to collect the gold.

AVAILABLE UNIMPROVED LAND:
Lands which are offered to BLM (or BLM cooperators) for acquisition and which contain improvements which represent less than 20% of the total value of the land.

BIOLOGICAL ASSESSMENT:
A procedural step in the interagency consultation process under Section 7 of the Endangered Species Act where the BLM submits a written summary of potential project impacts to threatened or endangered species to the USFWS for their evaluation.

CADASTRAL SURVEY:
A survey which creates, makes, defines, retraces, or reestablishes boundaries and subdivisions of the public land of the United States.

CANDIDATE SPECIES:
Candidate species are any species not yet officially listed, but are undergoing a status review or are proposed for listing according to Federal Register notices published by the Secretary of the Interior or the Secretary of Commerce.

CANOPY:
The continuous cover of branches and foliage formed collectively by the crowns of adjacent trees and other woody growth.
CLASSIFICATION:
The process of determining whether the lands are more valuable or suitable for transfer or use under particular or various public land laws than for retention in Federal ownership for management purposes.
COMMERCIAL FOREST LAND (CFL):
Forest land that is capable of yielding at least twenty cubic feet of wood per acre per year of commercial coniferous tree species.
CRITICAL HABITAT:
Any habitat, which if lost, would appreciably decrease the likelihood of the survival and recovery of a threatened or endangered species, or a distinct segment of its population. Critical habitat may represent any portion of the present habitat of a listed species and may include additional areas for reasonable population expansion. Critical habitat must be officially designated as such by the Fish and Wildlife Service or the National Marine Fisheries Service.
CULTURAL RESOURCES:
Those fragile and nonrenewable remains of human activities, occupations, and endeavors as reflected in sites, buildings, structures, or objects, including works of art, architecture, and engineering. Cultural resources are commonly discussed as prehistoric and historic values, but each period represents a part of the full continuum of cultural values from the earliest to the most recent.
CUMULATIVE IMPACT:
The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.
DESIGNATED RIGHT-OF-WAY CORRIDOR:
A parcel of land either linear or areal in character that has been identified by law, by Secretarial Order, through the land-use planning process or by other management decision as being a preferred location for existing and future right-of-way grants and suitable to accommodate more than one type of right-of-way or one or more rights-of-way which are similar, identical or compatible.
DESIRED PLAN COMMUNITY (DPC):
A plant community which produces the kind, amount, and proportion of vegetation needed to meet or exceed the land use/activity plan objectives established for the site. The DPC must be within the capability of a site to produce the desired vegetation through management, land treatment, or a combination of both.
DRAFT RMP:
The Draft Redding Resource Management Plan and Environmental Impact Statement issued by the Bureau of Land Management in March 1991, i.e. the precursor to this document.
EASEMENT:
A limited right or interest in the land of another entitling the holder to some use, privilege, or benefit.
ENDANGERED SPECIES:
Any species formally recognized by the U.S. Fish and Wildlife Service as in danger of extinction throughout all or a significant portion of its range.
ENVIRONMENTAL ASSESSMENT (EA):
The procedure for analyzing the impacts of some proposed action on a given environment and the documentation of the analysis. An EA is conducted to ascertain the need to develop an Environmental Impact Statement (EIS).
ENVIRONMENTAL IMPACT STATEMENT (EIS):
A written analysis of the significant impacts on the environment of a proposed project or resource management plan.
EXCAVATION (archaeological):
The scientifically controlled recovery of subsurface materials and information from an archaeological site. Recovery techniques are relevant to research problems and are designed to produce maximum knowledge about the site's use, its relation to other sites and the natural environment, and its significance in the maintenance of the cultural system under study.
EXCHANGE:
A conveyance of lands and interests therein from the United States to a person at the same time there is a conveyance of lands and interests therein from the person to the United States.

FAIR MARKET VALUE:
The value of specific land(s) in terms of dollars which is established through a professional appraisal prior to sale of the land(s).

FEDERAL CANDIDATE SPECIES:
Category I: Plant and animal species for which the U.S. Fish and Wildlife Service currently has on file substantial information to support a proposal to list as threatened or endangered.

Category II: Plant and animal species for which current information indicates that a proposal to list as threatened or endangered is possibly appropriate, but for which more information is needed to support a listing proposal.

FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976 (FLPMA):
Public Law 94-579, which gives the BLM legal authority to establish public land policy, to establish guidelines for administering such policy and to provide for the management, protection, development and enhancement of the public land.

FEDERAL MINERAL RESERVE ESTATE:
The ownership of the right to all or certain minerals in the land, or reservation of fractional interest in all or certain minerals in perpetuity or for a specified period of time by the Federal government. See "SPLIT ESTATE".

FINAL RMP:
The Redding Resource Area Proposed Resource Management Plan and Final Environmental IMpact Statement, i.e. this document.

FLOODPLAIN:
The nearly level alluvial plain that borders a stream or river and is subject to inundation during high water periods; the relatively flat area or lowland adjoining a body of standing or flowing water which has been or might be covered by floodwaters.

FLUID MINERALS:
Geothermal, gas, and oil.

FREE FLOWING:
A stream which is existing or flowing in natural condition without significant impoundment, diversion, straightening, rip-rapping, or other modification of the waterway.

GEOLOGY, ENERGY, AND MINERALS (GEM) REPORT:
A mineral assessment report which determines the mineral potential for the resource area, including a description of the process for making the determinations. The GEM assessment was carried out through a literature study of the geology, mineral occurrence, and mineral development history of the resource area, as well as consideration of the regional paleogeographic and plate tectonic setting of northern California. Most of the literature and data sources used in the preparation of this report are available for review in the Redding Resource Area. Mineral potentials are determined and assigned to lands as described in the BLM 3031 Manual, Mineral Potential Classification System. Potentials are rated as "no", "low", "moderate", and "high".

HABITAT CONSERVATION AREA (HCA):
The term is used in the interagency report on spotted owls commonly referred to as the Jack Ward Thomas Report. A habitat conservation area is a block of habitat capable of supporting a single pair of spotted owls or up to 50 pairs of spotted owls.

HABITAT MANAGEMENT PLAN (HMP):
A written and officially approved plan for a specific geographic area which identifies wildlife habitat and related objectives, establishes the sequence of actions for achieving objectives and outlines procedures for evaluating accomplishments.

INTERIM MANAGEMENT POLICY AND GUIDELINES FOR LAND UNDER WILDERNESS REVIEW (IMP):
A BLM document, dated December 12, 1979, which defines the policy for management of wilderness study areas so as not to impair their suitability for preservation as wilderness. The IMP will apply to the land until Congress determines whether or not it is to be designated wilderness.

ISOLATED FIND:
An occurrence of a single artifact or cultural feature including stone tools, milling tools, and other artifacts.

LAND TENURE ADJUSTMENT:
Changes in public land ownership or administration for various reasons including the following:

a. The redistribution of public lands via exchange to provide a land pattern which is more efficient to manage or which contain resource values that have greater public values.

b. The disposal or transfer of public lands for community needs, management efficiency, or trespass resolution.

c. Acquisition of land via purchase, donation or administrative transfer from another agency.

LAND USE MANAGEMENT ALTERNATIVE:
The alternatives developed in Chapter 3 of this RMP to assist BLM is resolving the major planning issues and management concerns within each management area.

LEASABLE MINERALS:
Minerals such as coal, oil shale, oil and gas, phosphate, potash, sodium, and geothermal resources that may be acquired under the Mineral Leasing Act of 1920, as amended. Yearly lease rentals and production royalties are paid to the Federal Government.

LEASE:
An instrument through which interests are transferred from the Federal government via BLM to a private or public entity subject to certain obligations and considerations.

LITHIC SCATTER:
A prehistoric site characterized by a scatter of stone tools and flakes that may indicate a number of functions.

LOCATABLE MINERALS:
Minerals or materials subject to disposal and development through the Mining Law of 1872 (as amended). Generally includes metallic minerals such as gold, silver, copper, iron, and all other minerals not subject to lease or sale (some bentonites, limestone, talc, gypsum, etc).

LODE CLAIM:
A mining claim located for a mineral deposit consisting of veins, veinlets, or disseminations in solid rock, e.g., gold-bearing quartz veins.

MANAGEMENT AREA:
A discrete portion of the total planning area that has common features, problems, and/or management needs, that lends itself to specific treatment and analysis in this RMP.

MANO:
A cobble used on a flat rock surface to grind native food products, usually hard seeds, to produce a flour. Such tools exhibit grinding scars and polish.

MASSIVE SULFIDE DEPOSIT:
An ore deposit characterized by a great concentration of metallic sulfide minerals in one place. Iron Mountain Mine, northwest of Redding, is an example of such a deposit.

MEMORANDUM OF UNDERSTANDING (MOU):
Signed pact between two or more entities agreeing to some course of action.

MIDDEN:
Largely decomposed cultural refuse and remains from campfires, tool making, collapsed structure and other human activities localized to one spot resulting in a noticeable soil discoloration and build-up. Sometimes, this build-up can result in a large mound covering a few acres.

MILLING STATION (archaeological):
Portable or bedrock milling artifacts or features including metates, bedrock grinding slicks, and mortars (in isolation or in groups).

MINERAL ENTRY:
The location of mining claim(s) by an individual to protect his discovery right to a valuable mineral deposit.

MINERAL MATERIALS:
Minerals such as common varieties of sand, stone, gravel, pumicite and clay that may be acquired under the Materials Act of 1947, as amended through BLM sales at fair market value or free use permits to government agencies.

MINERAL WITHDRAWALS:
Closure of land to specific mineral development laws such as the Mining Law of 1872 and the Mineral Leasing Act of 1920. Withdrawal of public lands are subject to valid existing rights such as valid mining claims and mineral leases which precede the withdrawal.

MITIGATION:
The lessening of a potential adverse effect by applying appropriate protection measures, the recovery of cultural resource data or other measures.

MITIGATION MEASURES:
Methods or procedures committed to by BLM for the purpose of reducing or lessening the impacts of an action.

MORTAR (archaeological):
A cupped grinding slab used with an elongated cobble to pulverize softer native food products, such as acorns.
MOTORIZED TRAVEL:
Travel in any motorized vehicle for recreation purposes; including driving or riding in off-highway vehicle (OHV) areas.
MULTIPLE USE:
The management of public land and its various resource values so that they are used in the combination that will best meet present and future public needs. Multiple-use is applied on an areal basis and rarely, if ever, on a point basis.
NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) OF 1969:
A law enacted on January 1, 1970 that established a national policy to maintain conditions under which man and nature can exist in productive harmony and fulfill the social economic and other requirements of present and future generations of Americans. It established the Council on Environmental Quality for coordinating environmental matters at the federal level and to serve as advisor to the President on such matters. The law made all federal actions and proposals which could have significant impact on the environment subject to review by federal, state and local environmental authorities.
NATIONAL HISTORIC PRESERVATION ACT (NHPA):
The primary federal law providing for the protection and preservation of our cultural resources. Making it a national policy to preserve our cultural heritage, NHPA established the National Register of Historic Places, the Advisory Council on Historic Preservation and State Historic Preservation and State Historic Preservation Officers.
NATIONAL REGISTER OF HISTORIC PLACES (NRHP):
A list of districts, sites, buildings, structures and objects significant in American history, architecture, archaeology and culture maintained by the Secretary of the Interior. Expanded as authorized by Section 2(b) of the Historic Sites Act of 1935 (16 U.S.C. 462) and Section 101(a)(1) (A) of the National Historic Preservation Act of 1966 (as amended).
NATIONAL WILD AND SCENIC RIVERS SYSTEM (NWSRS):
A system of rivers created under Public Law 90-542 (October 2, 1968) as amended by Public Law 99-590 (October 30, 1986), which preserves certain rivers or sections thereof in their free-flowing condition and that their immediate environments shall be protected for the benefit and enjoyment of present and future generations.
NATIVE AMERICAN (INDIAN):
An individual who traces his or her genealogy to the aboriginal inhabitants of the planning area. These persons are also referred to as "Indians" or "Native American Indians".
NO ACTION:
An alternative to the Proposed Action required for analysis by NEPA. In this RMP the NO ACTION alternative is a continuation of the existing management decisions of the 1982 Redding Management Framework Plan Amendment.
OFF-HIGHWAY VEHICLE (OHV):
Any motorized vehicle designed for cross-country travel over any type of natural terrain. Exclusions (from Executive Order 11644, as amended by Executive Order 11989) are any military, fire, emergency or law enforcement vehicles while being used for emergency purposes, any vehicle whose use is expressly authorized or otherwise officially approved, vehicles in official use and any combat support vehicle in times of national defense emergencies.
OLD GROWTH FOREST:
A forested area which includes relatively old and undisturbed coniferous trees as well as endemic species which inhabit these ecological settings.
OPEN SPACE:
Unimproved land.
OUTSTANDING NATURAL AREA (ONA):
Area of outstanding scenic splendor or natural beauty that merits special attention and care to ensure its preservation in a natural condition for the enjoyment of present and future visitors.
OUTSTANDINGLY REMARKABLE VALUE:
A resource value or natural element of a stream being considered for inclusion in the National Wild and Scenic Rivers System which is extraordinary within the region or (for the purposes of this RMP) within the planning area.

PATCH CUT:
A small clear cut. A silvicultural practice in which a portion of a forest (generally less than three acres) has all trees removed to form an opening or "patch" in the forest. Reasons may be silvicultural (timber production and forest regeneration) or to enhance other values such as wildlife habitat.
PATENT:
A government deed that conveys legal title for land to an individual or another government entity.
PLACER CLAIM:
A mining claim located for a surface mineral deposit formed by a natural concentration of a valuable mineral, e.g. gold particles in weathered debris, e.g. sand and gravel.
PLANNING AREA:
The geographic area treated by this RMP. This area is identified as the Redding Resource Area.
PREFERRED ALTERNATIVE:
The land use management alternative selected by BLM for a management area. This term is synonymous with proposed action.
PREHISTORIC:
Refers to period wherein aboriginal cultural activities took place which were not yet influenced by contact with historic non-native culture(s).
PRESCRIBED BURNING:
The application of fire to wildland fuels under such conditions of weather, fuels, and topography that specific objectives are accomplished safely.
PRIMITIVE:
Characterized by an essentially unmodified natural environment isolated from the sights and sounds of man. No facilities are provided.
PRODUCTIVE FOREST BASE:
This term is often preceded with the adjective "AVAILABLE". In either case it is commercial forest land which is available for sustained yield forestry management.
PROPOSED ACTION:
The individual land use management alternative selected for implementation by BLM for each management area. The aggregate of these preferred alternatives is the proposed action of the RMP as a whole.
PROTEST:
A written protest regarding this document filed with the Director of the Bureau of Land Management within thirty days of the Notice of Availability of this document as published by the U.S. Environmental Protection Agency in the Federal Register.
PUBLIC LAND:
Land administered by the Bureau of Land Management.
PUBLIC LAND INTERESTS:
Any and all interests associated with land which are owned by the Federal government, including mineral rights, water rights, rights-of-way, improvements or the actual surface of the land.
RAPTOR:
Any bird of prey with sharp talons and strongly curved beaks; e.g., hawks, owls, eagles, falcons.
RECREATION AND PUBLIC PURPOSES ACT (R&PP):
This act authorizes the Secretary of the Interior to lease or convey public land for recreational and public purposes under specified conditions to states or their political subdivisions and to nonprofit corporations and associations.
RECREATION OPPORTUNITY SPECTRUM (ROS):
A method for classifying the land by setting opportunity, according to the ability of the land to provide various types of physical, social, and managerial settings to satisfy the desires and expected behavioral preferences of the users.
RECREATIONAL MINERAL COLLECTION:
The collecting of mineral specimens, primarily placer, such as gold, platinum, and certain mineral materials, for the purpose of recreational satisfaction rather than financial gain.
RESIDUAL MULCH:
The amount of old plant material left on the ground at the beginning of a new growing season. It is an important indicator of the previous season's use and can be used to describe the health or condition of annual rangelands.
RESEARCH NATURAL AREA (RNA):
A natural area established and maintained for research and education, which may include (1) typical or unusual plant or animal types, associations or other biotic phenomena or (2) characteristics of outstanding

geologic, cultural, soil or aquatic features or processes. The public may be excluded or restricted from such areas to protect studies.

RESOURCE AREA:
The smallest geographic administrative unit of the BLM. Resource areas compose BLM districts.

RIGHT-OF-WAY GRANT:
A right attached to the land for use by another party (i.e., utility lines, road, etc.)

RIPARIAN:
An area of land directly influenced by permanent water which has visible vegetation or physical characteristics reflective of this permanent water influence. Normally used to refer to the plants of all types that grow rooted in the watertable of streams, ponds and springs.

RIPARIAN CLASS I:
Excellent, negligible use/damage; well-rooted vegetation (primarily trees, grasses, sedges, and forbs); very little, if any erosion from vegetation areas, less than 5 percent bare soil showing along the shore line.

RIPARIAN CLASS II:
Good, some use/damage; vegetation generally well-rooted; sod mostly intact; soil showing in places (6 percent to 15 percent bare soil showing overall); some surface erosion evident.

RMP:
Please refer to "Final RMP".

ROADED NATURAL:
Characterized by a generally natural environment with moderate evidence of man and about equal opportunities for isolation from or interaction with the sights and sounds of man. Rustic facilities are provided for user safety and convenience as well as resource protection. Conventional motorized use is provided for in construction standards and design of facilities.

RURAL:
Characterized by substantial modifications to the natural environment and ready evidence of the sights and sounds of man. Opportunities for interaction with others are prevalent. Facilities are designed for user convenience and may be provided for specialized activities. User concentrations are moderate to high.

SALABLE MINERALS:
A term synonymous with mineral materials which are made available for sale under the provisions of the Mineral Materials Act of 1947, as amended.

SCENIC QUALITY:
The relative worth of a landscape from a visual perception point of view, evaluated in terms of landform, vegetation, water, color, adjacent scenery, scarcity and cultural modifications.

SEGREGATION:
The removal for a limited period, subject to valid existing rights, of a specific area of the public lands from the operation of the public land laws, including the mining laws, pursuant to the exercise by the Secretary of the Interior regulatory authority as conferred by law to allow for the orderly administration of the public lands.

SEMI-PRIMITIVE:
Characterized by a predominantly unmodified natural environment with some opportunity for isolation from the sights and sounds of man. Limited facilities for protection of resource or visitor safety may be provided.

SEMI-PRIMITIVE MOTORIZED:
A Semi-Primitive environment in which motorized use is permitted.

SEMI-PRIMITIVE NON-MOTORIZED:
A Semi-Primitive environment in which motorized use is prohibited.

SENSITIVE SPECIES:
(See SPECIAL STATUS SPECIES)

SERPENTINE:
A group of common, green-colored, low silica content rock forming minerals created by the alteration (metamorphism) of magnesium-rich minerals.

SITE CLASS:
A measure of the quality and potential of a locale to produce a volume of merchantable species of timber. The highest potential is assigned to Class I.

SOCIOCULTURAL USE:
A social and/or cultural group use of resources, places, structures, or objects which help maintain the heritage or identity of the group.

SOCIOCULTURAL VALUE:
A belief or perception which is important to a group of people in the maintenance of their identity and ethnic heritage. This term is used in this RMP solely to denote value(s) unique to Native American Indians.
SPECIAL RECREATION MANAGEMENT AREA (SRMA):
Areas requiring explicit recreation management to achieve the Bureau recreation objectives and to provide specific recreation opportunities. Special management areas are identified in the RMP, which also defines the management objectives for the area. BLM recreation investments are concentrated in these areas.
SPECIAL STATUS SPECIES:
(includes the following:)

Proposed Species: are species that have been officially proposed for listing as threatened or endangered by the Secretary of the Interior.

Threatened or Endangered: are those officially listed as threatened or endangered by the Secretary of the Interior under the provisions of the Endangered Species Act.

Candidate Species: are those species designated as Federal candidates (categories 1 and 2) for listing as threatened or endangered by the U.S. Fish and Wildlife Service.

State Listed Species: are those proposed for listing or listed by California in a category (rare or endangered) implying potential endangerment or extinction. Listing is either by legislation or regulation.

Sensitive Species: are those designated by the California State Director of BLM, usually in cooperation with the California Natural Diversity Data Base, as sensitive. They are those species that are: (1) under status review by the U.S. Fish and Wildlife Service; or (2) whose numbers are declining so rapidly that Federal listing may become necessary; or (3) with typically small and widely dispersed populations; or (4) those inhabiting ecological refugia or other specialized or unique habitats.

SUSTAINED YIELD:
The achievement and maintenance in perpetuity of a high level annual or regular periodic output of the various renewable resources of the public land consistent with multiple use. This term is most commonly associated with forest management and the provisions of an undiminished or "even flow" average annual production of wood fiber over decades. It is also applicable to the management of all renewable resources including forage, wildlife, water, recreation, or any value that can be managed for renewal and sustained productively. It is dependent on the application of multiple use management in a way that assumes the maintenance of the land's productivity.
SPLIT ESTATE:
Partial Federal ownership of a parcel of land where the U.S. Government owns an interest only in the surface or the subsurface of the parcel. Federal mineral reserve estate remaining after entry under the Stock Raising Homestead Entry Act of 1916 is a primary example of split estate.
TEMPORARY CAMP (archaeological):
Archaeological sites apparently occupied for a short length of time and/or by a relatively small group of people. Cultural remains may include any combination of artifacts, stone, tool manufacturing debris, features, fire-affected rock, milling tools and culturally modified soil or midden.
THREATENED SPECIES:
Any species formally recognized by the U.S. Fish and Wildlife Service as likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
TIMBER PRODUCTION CAPABILITY CLASSIFICATION (TPCC):
The process of partitioning forest land into major classes indicating relative suitability to produce timber on a sustained yield basis.
TRESPASS:
The use of public land without proper authority, resulting either from an innocent, willful or negligent act.
ULTRAMAFIC:
Igneous rock composed mainly of dark ferromagnesian minerals such as olivine and augite.
VERNAL POOL:
A shallow depression underlain by an impermeable layer consisting usually of claypan or hardpan, on which winter rainfall accumulates, forming a pool of standing water that remains for several weeks or months into the spring until it evaporates. These ephemeral pools support a specially adapted flora found neither in true marshes nor in dryland habitats, which include some of California's rarest and most unusual plants.

VILLAGE (archaeological):
An archaeological site containing a wide range of artifacts, refuse, and features representing an apparent long-term or intense seasonal activity of a number of people. Archaeological evidence includes artifacts associated with (a) a wide range of subsistence activities, as well as floral and faunal remains which represent subsistence activities, (b) the manufacture of other artifacts, and (c) ceremonial activities. Such a site is characterized by most or all of the following: extensive scatters and quantities of cultural debris such as fire-affected rock, whole and broken stone tools, chipping waste, milling tools, structural depressions or rings, hearths, and mortuary remains. A well-developed cultural deposit (midden) is an essential constituent of these large sites.

VISITOR DAY:
Unit of measure for recreation use; twelve visitor hours spent on public land by one recreationist.

VISUAL RESOURCE MANAGEMENT (VRM):
The planning, design and implementation of management objectives to provide acceptable levels of visual impacts for all BLM resource management activities. VRM Classes I through III each, describe a different degree of modification allowed in the basis elements of the landscape while retaining the character of the setting(s).

WATERSHED:
A total area of land above a given point on a waterway that contributes runoff water to the flow at that point.

WETLANDS:
Permanently wet or intermittently flooded areas where the water table is at, near, or above the soil surface for extended intervals, where hydric wet soil conditions are normally exhibited, and the water depths are less than 2 meters. Vegetation is generally comprised of water-loving forms (cattails, bulrushes, etc.)

WILD AND SCENIC RIVER CLASSIFICATIONS:
(From Section 2 (b), Public Law 90-542)

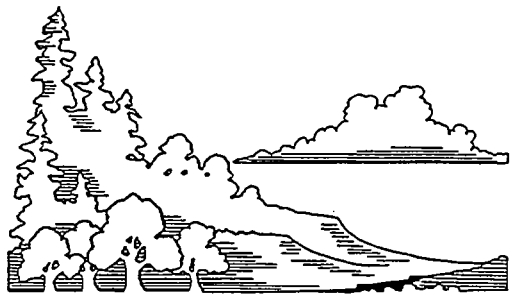
> **Wild River Areas:** Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
>
> **Scenic River Areas:** Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
>
> **Recreational River Areas:** Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

WILDERNESS AREA:
An area formally designated by Congress as a part of the National Wilderness Preservation System.

WILDERNESS STUDY AREA (WSA):
A parcel of public land that has been found to possess the basic wilderness characteristics identified by Congress in the Wilderness Act of 1964; namely, naturalness, outstanding opportunities for solitude or a primitive and unconfined type of recreation, size of at least 5,000 acres, and the appearance of having been affected primarily by the forces of nature. Supplemental values such as geological, archaeological, historical, ecological or scenic features also may be present.

WITHDRAWAL:
An action that restricts the disposal or use of public land and holds it for specific public purposes; also, public land that has been dedicated to public purposes.

WOODLAND:
Forested land not capable of producing a sustained yield of commercial sawtimber, but can and does produce forest products like firewood, posts and poles, etc.



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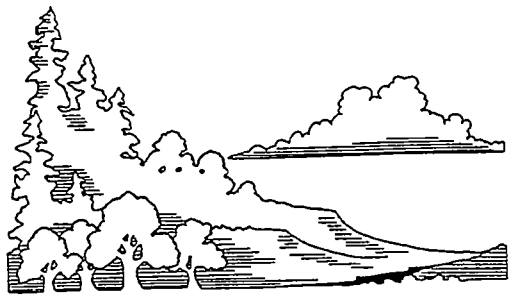

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