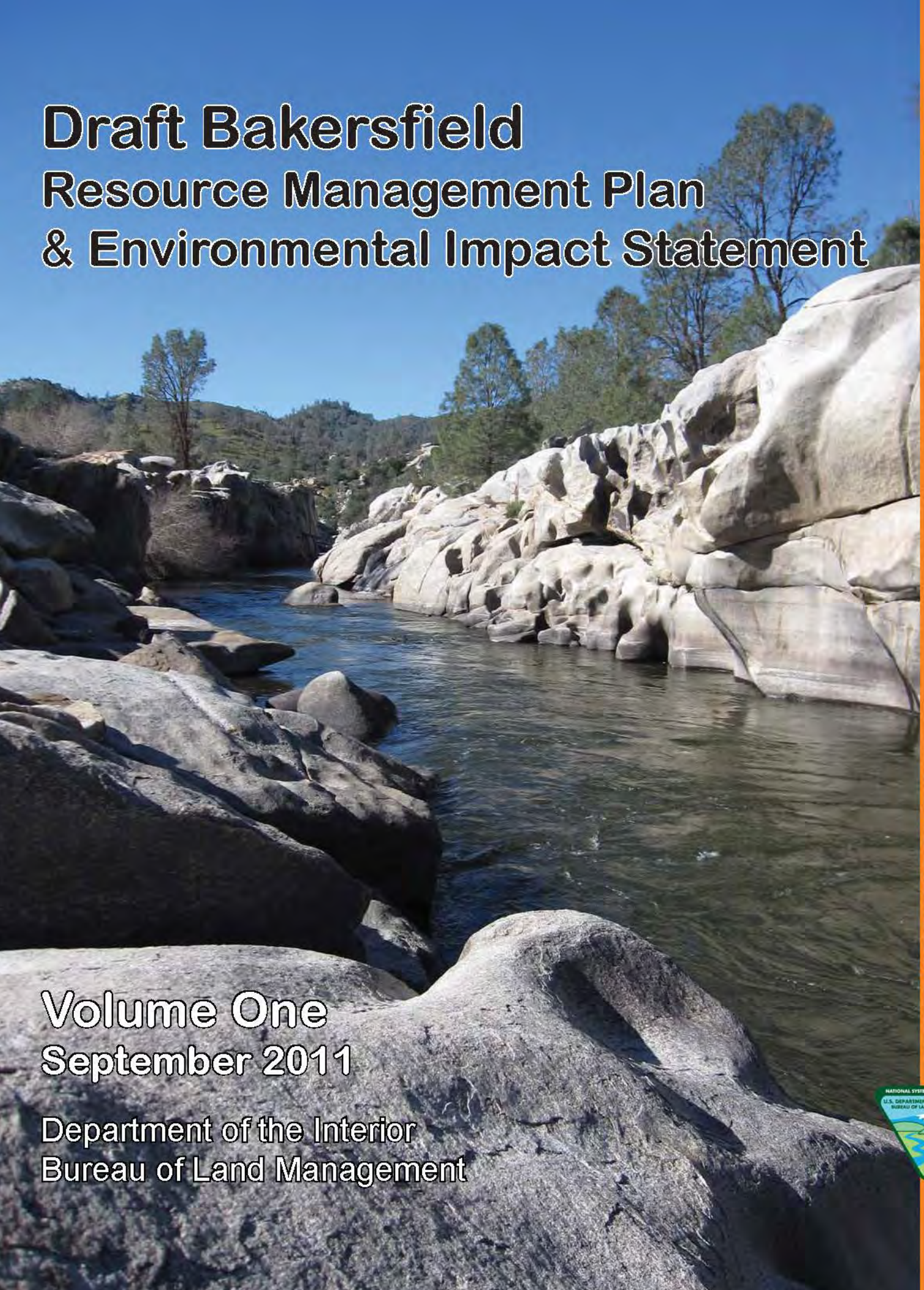

Draft Bakersfield
Resource Management Plan & Environmental Impact Statement

Volume One
September 2011

Department of the Interior
Bureau of Land Management

BLM

Bakersfield Field Office, California

The BLM manages more land – 253 million acres – than any other federal agency. This land, known as the National System of Public Lands, is primarily located in 12 Western States, including Alaska. The Bureau, with a budget of about $1 billion, also administers 700 million acres of subsurface mineral estate throughout the nation. The BLM's multiple-use mission is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. The Bureau accomplishes this by managing such activities as outdoor recreation, livestock grazing, mineral development, and energy production, and by conserving natural, historical, cultural, and other resources on public lands.

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ABSTRACT

Lead Agency: U.S. Department of the Interior (DOI), Bureau of Land Management (BLM)

Type of Action: Administrative

Jurisdiction: Madera, San Luis Obispo, Santa Barbara, Ventura, Kings, Tulare, eastern Fresno, and western Kern counties, California

Abstract: The Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) describe and analyze alternatives for the planning and management of public lands and resources administered by the BLM, Bakersfield Field Office. The Planning Area is located in central California, and comprises approximately 17 million acres of land. Within the Decision Area, the BLM administers approximately 400,000 acres of surface estate and 1.2 million acres of federal mineral estate.

Through this RMP revision, the BLM is revising the existing plans (1997 Caliente and 1984 Hollister RMPs) to address the availability of new data and policies, emerging issues, and changing circumstances that have occurred during the 14 plus years since the Record of Decisions (RODs) for the existing plans were signed. As part of the RMP revision process, the BLM conducted scoping to solicit input from the public and interested agencies on the nature and extent of issues and impacts to be addressed in the Draft RMP and Draft EIS. Planning issues identified for this RMP revision focus on access to public, travel, recreation and visitor services, wildlife and special status species, livestock grazing, and energy and minerals management.

To assist the agency decision maker and the public in focusing on appropriate solutions to planning issues, the Draft EIS considers five alternative RMPs.

Alternative A is a continuation of current management (No Action Alternative). Under this alternative, the BLM would continue to manage the use of public lands and resources under the existing RMPs, as amended. **Alternative B** is the BLM's current Preferred Alternative, which provides for a balance between resource protection and development. This is not a final agency decision, but instead an indication of the agency's preliminary preference that considers the recommendations of cooperating agencies and BLM specialists and reflects the best combination of decisions to achieve BLM goals and policies, meet the purpose and need, and address the key planning issues. **Alternative C** emphasizes protection of physical, biological, and heritage resources, while providing for the smallest level of development, comparatively. **Alternative D** mimics the emphasis on protection in alternative C, however, presents a no grazing option to be analyzed. **Alternative E** emphasizes resource development, while limiting protective management of physical, biological, and heritage resources.

When completed, the ROD for the RMP will provide comprehensive long-range decisions for (1) managing resources in the Bakersfield Field Office and (2) identifying allowable uses on BLM-administered surface and mineral estate. Comments are accepted for 90 days following the date on which the U.S. Environmental Protection Agency publishes the Notice of Availability for this Draft RMP and Draft EIS in the *Federal Register*. Comments may be submitted electronically using the RMP revision website at: www.ca.blm.gov/bakersfield or via e-mail to cacalrmp@blm.gov. Comments may also be submitted by mail to:

Bakersfield Field Office RMP/EIS
3801 Pegasus Drive
Bakersfield, California 93308-6837

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Draft Resource Management Plan
and
Environmental Impact Statement
for the
Bakersfield Field Office

Volume I

Chapters One, Two & Three

September 2011

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United States Department of the Interior
BUREAU OF LAND MANAGEMENT

Bakersfield Field Office
3801 Pegasus Drive, Bakersfield, California 93308-6837

Dear Reader:

Attached for your review and comment is the Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) for the California Bureau of Land Management (BLM), Bakersfield Field Office. The BLM prepared this document in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended, the Federal Land Policy and Management Act of 1976 (FLPMA), implementing regulations, the BLM's Land Use Planning Handbook (H-1601-1), and other applicable law and policy.

The Planning Area consists of about 17 million acres of land which includes approximately 400,000 acres of surface lands and 1.2 million acres of federal mineral estate managed by the Bakersfield Field Office within Madera, San Luis Obispo, Santa Barbara, Ventura, Kings, Tulare, eastern Fresno, and western Kern counties.

When approved, this RMP will replace the 1997 Caliente RMP, and a portion of the 1984 Hollister RMP, and will guide the management of public lands administered by the Bakersfield Field Office into the future. The Bakersfield RMP and EIS and supporting information are available on the project web site at: www.ca.blm.gov/bakersfield

The BLM encourages the public to provide information and comments pertaining to the analysis presented in the Draft RMP and Draft EIS. We are particularly interested in feedback concerning the adequacy and accuracy of the proposed alternatives, the analysis of their respective management decisions, and any new information that would help the BLM as it develops the plan.

In developing the Proposed RMP and Final EIS, which is the next phase of the planning process, the decision maker may select various management decisions from each of the alternatives analyzed in the Draft RMP and Draft EIS for the purpose of creating a management strategy that best meets the needs of the resources and values in this area under the BLM multiple use and sustained yield mandate. As a member of the public, your timely comments on the Bakersfield RMP and EIS will help formulate the Proposed RMP and Final EIS.

Comments will be accepted for ninety (90) calendar days following the Environmental Protection Agency's (EPA) publication of its Notice of Availability of the Draft RMP and EIS in the Federal Register. The BLM can best utilize your comments and resource information submissions if received within the review period.

Comments may be submitted electronically at: cacalrmp@blm.gov; or by mail to:

Bakersfield Field Office RMP/EIS
3801 Pegasus Drive
Bakersfield, California 93308-6837

To facilitate analysis of comments and information submitted, we strongly encourage you to submit comments in an electronic format.

Your review and comments on the content of this document are critical to the success of this planning effort. If you wish to submit comments on the Draft RMP and Draft EIS, we request that you make your comments as specific as possible. Comments will be more helpful if they include suggested changes, sources, or methodologies, and reference to a section or page number.

Comments which contain only opinion or preferences will be considered and included as part of the decision making process, although they will not receive a formal response from the BLM.

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

Public meetings to provide an overview of the document, respond to questions, and take public comments will be announced by local media, website, and/or public mailings at least 15 days in advance.

Copies of the Draft RMP and Draft EIS have been sent to affected federal, state, and local government agencies [include tribal governments] and to those persons who indicated that they wished to receive a copy. Copies of the Draft RMP and Draft EIS are available for public inspection at the Bakersfield Field Office and the following BLM location:

Bureau of Land Management, California State Office
2800 Cottage Way
Sacramento, CA 95825

Thank you for your continued interest in the Bakersfield RMP and EIS. We appreciate the information and suggestions you contribute to the planning process. For additional information or clarification regarding this document or the planning process, please contact Sue Porter, RMP Project Manager at (661) 391–6022.

Sincerely,

Timothy Z. Smith
Field Manager, Bakersfield Field Office

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EXECUTIVE SUMMARY

INTRODUCTION

The Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) describes and analyzes alternatives for the future management of public lands and resources administered by the Bureau of Land Management (BLM), Bakersfield Field Office, located in southern-central California. The Planning Area encompasses about 17 million acres throughout Kings, San Luis Obispo, Santa Barbara, Tulare, Ventura, Madera, eastern Fresno, and western Kern Counties. Stretching from the coastal islands in the Pacific Ocean across the Central Valley to the crest of the Sierra Nevada Range, public lands are scattered across the Planning Area in numerous small parcels. With a variety of settings and landforms, this is a region of diverse topography and landscapes, and extraordinary biodiversity. Elevations range from sea level to more than 14,500 feet at Mount Whitney. The BLM Bakersfield FO is directly responsible for the management of approximately 400,000 acres of public land and 1.2 million acres of Federal mineral estate (i.e., the Decision Area).

Revising existing land use plans is a major federal action for the BLM. The National Environmental Policy Act of 1969 (NEPA), as amended, requires federal agencies to prepare an EIS for major federal actions; thus, this Draft RMP and Draft EIS is a combined document. The Draft EIS analyzes the impacts of five alternative RMPs for the Decision Area, including the No Action Alternative (Alternative A) and the Preferred Alternative (Alternative B). The No Action Alternative reflects current management under the existing land use plan. The analysis considers a range of alternatives that provide for various levels of physical, biological, and heritage resource protection as well as opportunities for motorized and non-motorized recreational activities, leasing and development of mineral resources, livestock grazing, and other land use activities.

PURPOSE AND NEED

The Federal Land Policy and Management Act (FLPMA), requires developing, maintaining, and, as appropriate, revising land use plans for public lands. BLM-administered lands within the Planning Area are currently managed according to the 1997 Caliente RMP (existing plan) and 1984 Hollister RMP. Since the Record of Decision (ROD) for the existing plan, new data has become available and laws, regulations, and policies regarding management of these public lands have changed. In addition, decisions in the existing plan do not satisfactorily address all new and emerging issues and lands acquired after the completion of the previous plans. These changes and potential deficiencies created the need to revise the existing plan. The Bakersfield Field Office RMP revision is anticipated to be completed by September 2012.

The purpose, or goal, of the RMP is to ensure lands administered by the BLM are managed in accordance with the FLPMA and the principles of multiple use and sustained yield. The reason for

revising the existing plan is to address the changes occurring in the Planning Area and to select a future management strategy that best achieves a combination of the following elements:

- Employ a community-based planning approach to collaborate with federal, state, and local agencies.
- Establish goals and objectives for managing resources and resource uses in the approximately 400,000 surface acres and 1.2 million acres of federal mineral estate in the Decision Area in accordance with the principles of multiple use and sustained yield.
- Identify land use plan decisions to guide future land-management actions and subsequent site-specific implementation decisions.
- Identify management actions and allowable uses anticipated to achieve the established goals and objectives and reach desired outcomes.
- Provide comprehensive management direction by making land use decisions for all appropriate resources and resource uses administered by the Bakersfield Field Office.
- Provide for compliance with applicable tribal, federal, and state laws, standards, and implementation plans, and BLM policies and regulations.
- Recognize the Nation's need for domestic sources of minerals and renewable energy, and incorporate requirements of the Energy Policy Act of 2005 (Public Law 109-58).
- Retain flexibility to adapt to new and emerging issues and opportunities and to provide for adjustments to decisions over time based on new information and monitoring.
- Strive to be compatible with the plans and policies of adjacent local, state, tribal, and federal agencies and consistent with federal law, regulations, and BLM policy.

PUBLIC INVOLVEMENT AND AGENCY COOPERATION

The intent of the scoping process is to provide an opportunity for the public, tribes, government agencies, and interest groups to participate in determining the scope and issues to be addressed by alternatives and analyses in the planning process and the EIS. In general, public involvement assists the agency by broadening the information base for decision making, disseminating information to the public about the RMP and EIS, and ensuring that public needs and viewpoints are brought to the attention of the BLM.

Although comments have been accepted and incorporated up until November 10, 2010, the formal scoping period was from March 4, 2008 to May 3, 2008. The BLM solicited written comments on the RMP revision process, issues, and impacts and held a series of seven public meetings in the Planning Area, additional meetings we're held in 2009 to update the public on the planning process and garner additional resource specific information. The BLM structured the meetings in an open house format, with resource specialists and other representatives of the BLM on hand to personally address questions and provide information to meeting participants.

Public participation will be ongoing throughout the planning process. The Proposed RMP and Final EIS will consider all substantive oral and written comments received during the 90-day public comment period for this Draft RMP and Draft EIS. In addition, members of the public with standing have the opportunity to protest the content of the Proposed RMP and Final EIS during the specified 30-day protest period. In addition, the public will have the opportunity to comment on implementation level decisions during the 30 days following the release of the Proposed RMP and Final EIS. The ROD will be issued by the BLM after the release of the Proposed RMP and Final EIS, the Governor's Consistency Review, and protest resolution.

ISSUES ADDRESSED

Planning issues identified through the scoping process and other public outreach efforts focus on the demands, concerns, conflicts, or problems associated with use or management of public lands and resources in the Decision Area. Key planning issues within the scope of the EIS are used to develop alternatives or are otherwise addressed in the EIS. The main issues described and analyzed in the EIS include the following:

Issue 1: *Adequately address the need for access to, and continued availability of, public lands for multiple recreational uses and open spaces.*

Issue 2: *Establish a balance between the extent of the travel network and the protection of natural and cultural resources including an appropriate allocation of routes to the various modes of transport.*

Issue 3: *Ensure appropriate protection for Threatened and Endangered species, critical habitat, other biological resources, and cultural and paleontological resources in a multiple-use environment.*

Issue 4: *Continue to appropriately manage livestock grazing to provide for economic benefit, rural lifestyles and vegetation management while protecting other resources.*

Issue 5: *Balance the demand for energy development (including oil and gas, wind, and solar energy) and other land use authorizations (such as road and transmission corridor rights-of-way) with other resource values.*

Issue 6: *Address the impacts of climate change on the management of public lands, including strategies that will reduce impacts and incorporate appropriate monitoring.*

ALTERNATIVES CONSIDERED IN DETAIL

To comply with NEPA requirements in the development of alternatives for this RMP and EIS, the BLM sought public input and analyzed a reasonable range of alternatives, including a No Action Alternative (Alternative A). The BLM conducted a series of workshops with an Interdisciplinary Team comprised of BLM specialists and local, state, and federal agency representatives. The BLM formulated four additional alternatives (B thru E) that reflect a range of resource use and conservation. Following analysis all alternatives the Interdisciplinary Team provided

recommendations for selecting the Preferred Alternative (Alternative B). The Preferred Alternative does not represent a final BLM decision and could change between publication of the Draft RMP and Draft EIS and Proposed RMP and Final EIS based on public comments on the draft document, new information, or changes in laws, regulations, or BLM policies. The BLM will make its final decision after it publishes the Proposed RMP and Final EIS, and will document its decision in a ROD.

Including the No Action Alternative (Alternative A), the five alternatives analyzed in this Draft EIS represent differing approaches to managing resources and resource uses in the Decision Area.

Each alternative comprises two categories of land use planning decisions: (1) desired outcomes (goals and objectives) and (2) allowable uses and management actions.

Goals and objectives direct BLM actions to most effectively meet legal mandates, regulations, and agency policy, as well as local and regional resource needs. Goals are broad statements of desired outcomes that are usually not quantifiable. Objectives identify more specific desired outcomes for resources and might include a measurable component. Objectives are generally expected to achieve the stated goals. Allowable uses are a category of land use decisions that identify where specific land uses are allowed, restricted, or excluded on BLM-administered lands and federal mineral estate in the Decision Area. Management actions are proactive measures (for example, measures the BLM will implement to enhance watershed function and condition), or limitations intended to guide BLM activities. Allowable uses often contain a spatial component because the alternatives identify whether particular land uses are allowed, restricted, or excluded. Alternatives may include specific management actions to meet goals and objectives and may exclude certain land uses to protect resource values.

Alternative A continues current management practices as the No Action alternative required by NEPA. This alternative would continue current management under the existing 1997 Caliente RMP and 1984 Hollister RMP, as amended. Management of resources and sensitive habitats would remain at current levels but would not address emerging issues concerning public lands. This alternative also would not address the use of lands acquired after the signing of these RODs, including public lands at Atwell Island, Piedras Blancas Light Station, and portions of the San Joaquin River Gorge. When no specific management actions are described in the No Action alternative, management of lands and resources has been guided by BLM policy and interim management strategies.

Alternative B (preferred alternative) balances resource conservation and ecosystem health with the production of commodities and public use of the land. This alternative provides opportunities to produce commodities from natural resources and to use the land for public purposes on a sustainable basis while maintaining important ecological, cultural, and recreational values.

Alternative C emphasizes conserving cultural and natural resources, maintaining functioning natural systems, and restoring natural systems that are degraded. Management would focus on protecting sensitive resources through greater limitation of resource uses.

Alternative D mimics Alternative C in all aspects except livestock grazing. This alternative eliminates livestock grazing from the public lands where Bakersfield RMP provides administrative direction for the livestock grazing program.

Alternative E emphasizes the production of natural resources commodities and public use opportunities. Resource uses such as recreation, livestock grazing, mining, and oil/gas leasing, consistent with BLM guidance and constraints, would be emphasized. Potential impacts on sensitive resources would be mitigated on a case-by-case basis.

ENVIRONMENTAL CONSEQUENCES

The purpose of the environmental consequences analysis is to determine the potential impacts of the federal action under each of the five alternatives on the human environment, while focusing on key planning issues identified by the BLM and established during the scoping process. The analysis of environmental consequences is arranged by the following program areas: Resources, Resource Uses, Special Designations and Social and Economic Considerations.

Resources

The analysis shows that all of the action alternatives result in reductions of PM_{10} emissions primarily in the San Joaquin Valley and East Kern Planning Areas; these reductions are consistent with the State Implementation Plans (SIP) and represent conformity. Ozone precursor emissions would increase slightly under all alternatives, but this increase represents less that 0.09% of the regional emissions inventory. While emission levels are above de minimis levels in the San Joaquin Valley for both ozone precursor emissions (10 tons per year) and PM2.5 (150 tons per year), all of the SIP requirements for the six federal nonattainment/maintenance areas are met by all alternatives.

Alternative A would be the least protective of natural and cultural resources allowing for the largest area available for surface disturbing activities and incompatible uses. Alternatives C and D would be the most restrictive of surface disturbing and incompatible uses; Alternative D would further eliminate the direct impacts of livestock grazing, however, implementation of this exclusion would have its own set of impacts resulting from the need restrict livestock from public lands (e.g. fencing of private lands) to prevent unauthorized grazing. . Alternative B would provide additional protection for approximately one-half of the federally listed species known or with potential to occur in the Decision Area and generally reduce the impacts of motorized routes on both biological and cultural resources.

Prescriptive management of lands identified as having wilderness characteristics in Alternative B would provide protection for 21% of the lands with wilderness characteristics outside of Wilderness and Wilderness Study Areas. Other compatible designations would protect an additional 24% of these lands. Wilderness characteristics would not receive any compatible management on the remaining areas and be subject to potential loss. Alternatives C and D would protect all lands with wilderness characteristics through prescriptive management. Whereas, Alternatives A and E would

not provide for the protection of any lands with wilderness characteristics outside of Wilderness and Wilderness Study Areas.

The greatest protection for visual resources would be provided under Alternatives B, C, and D because the existing visual conditions are maintained or managed as a higher VRM Class. Alternative E would manage the largest area that allows for major modifications to the existing visual condition. Alternative A would not provide VRM guidance at the landscape level; relying on project specific interim management of visual resources, which could result in undesirable visual contrast with the existing landscape.

Resource Uses

There is little difference between the alternatives concerning the designation of OHV Closed Areas, however, travel opportunities and the potential for the travel network to increase would be most limited in Alternatives C and D. Route designations within the alternatives range from a sizeable increase in the amount of routes designated for motorized use in Alternatives A and E; whereas, Alternatives C and D would result in a notable decrease from the existing travel network.

Alternative A focuses on land disposal actions and would ultimately result in a net loss of public lands and federal mineral estate. Conversely, the action alternatives are retention oriented. The action alternatives would increase the areas either totally excluding ROWs or implementing additional restrictions to their siting. Alternatives C and D apply the greatest area limitations and, therefore, have the largest impact to land use authorizations, including utility scale renewable energy projects.

The allocation of currently unallocated lands would result in a marginal increase in livestock grazing opportunity in Alternatives B, C, and E. Alternative D would eliminate livestock grazing from public lands in the decision area, however, the connected actions associated with the implementation of this alternative would be impracticable.

All alternatives continue fluid mineral development opportunities at or near current levels, especially given consideration of historic use patterns and the reasonably foreseeable development outside of producing oil fields. Under Alternatives C and D there would be a total elimination of solid leasable mineral development opportunity whilst the remaining alternatives continue to provide opportunity commensurate to the current condition. Overall there is marginal difference between the alternatives in their reduction of locatable development opportunities in areas with potential for these minerals. There is, however, a substantial reduction in opportunity for salable mineral developments in all action alternatives.

Alternative A would result in the least restrictions to specific recreational opportunities and the maintenance of existing access opportunities; however, it would not outline sufficient guidance for the adequate management of recreation. The action alternatives increase the level of opportunity specific restrictions including the largest areas of public closure under Alternatives C and D. Generally, there is little difference between the areas managed for recreation across the action

alternatives; however, the focus switches between intensive SRMA and moderate ERMA styles of management: most intensive management in Alternative E.

Special Designations

Alternatives C and D protect the largest area through designation as ACECs, primarily to maintain and enhance biological resource values. Relevant values would be at greatest risk from degradation under Alternative A, which would protect the smallest acreage and apply minimal special management to achieve ACEC objectives.

Alternatives B, C, and D eliminate the only Back Country Byway from the Decision Area. Alternatives A and E continue the designation of the Chimney Peak Byway with the latter providing guidance that would improve opportunities and experiences along the route.

Alternative B would find two segments of rivers suitable for inclusion in the National Wild and Scenic Rivers System. The remaining six rivers would no longer receive interim management; however, impacts to their outstandingly remarkable values would be unlikely because of overlapping special management. Alternatives C and D would find all eight river segments suitable and, therefore, continue protection. Alternatives A and E would find no segments suitable.

Social and Economic Considerations

None of the alternatives would be expected to reduce economic diversity (the number of economic sectors) or increase economic dependency, which occurs when the local economy is dominated by a limited number of industries. Shifts in emphasis could occur, but these would not result as a consequence of planning actions in this Draft RMP/Draft EIS. While the alternatives have the potential to affect local businesses and individuals, the relative contribution of BLM-related activities to the local economy and the relative differences between the alternatives would not be large enough to have any measurable effect on economic diversity or dependency.

All alternatives could result in increases in employment and labor income relative to current conditions over the next decade, from which minority and low income populations may benefit. As noted above, access for recreation and other uses would be accommodated under all the alternatives. In addition, access to traditional materials and cultural sites will continue to provide valuable resources to communities in the area; sustaining lifestyles, traditions, ceremonies and the heritage that remain an important part of community lifestyle, rural character and quality of life.

THE NEXT STEPS

This Draft RMP and Draft EIS, now issued, provides 90 days for public comment. A series of seven public meetings on this Draft EIS are scheduled during the 90-day comment period in the Planning Area. Following the 90-day public comment period, the BLM will prepare a Final EIS considering comments submitted. The Final EIS and Proposed RMP are scheduled for release in April 2012 with a ROD scheduled for September 2012.

READERS GUIDE TO THE DOCUMENT

CHAPTER ONE – INTRODUCTION

This chapter introduces the Draft Resource Management Plan and Environmental Impact Statement (Draft RMP/Draft EIS), describes the purpose and need to which the Bureau of Land Management (BLM) is responding, provides an overview of the BLM planning process, identifies planning issues and criteria, and identifies topics not addressed by this RMP revision.

CHAPTER TWO – ALTERNATIVES

This chapter describes how the five alternatives (A, B, C, D, and E) were developed, the components and content of each alternative. It also, discusses the alternatives considered but eliminated from further consideration. Finally it presents a comparative summary of impacts of each alternative.

Alternative A (no action) is listed as a complete alternative, whereas Alternatives B, C, D and E (the action alternatives) include some management decisions in common. For a complete understanding of these the individual decision within these alternatives must be combined with the management decisions detailed under *Management Common to All Action Alternatives*.

Maps referenced (as Map 2.X) for each alternative are located at the end of the first alternative referencing them (with the exception of Livestock Grazing and Route Designation maps – located in a separate oversized map packet available for download, and Lands and Realty Maps located in Appendix O), these maps are not repeated in the document if referenced later.

To further aid in organization, program discussions are organized into four main subgroups; Resources, Resource Uses, Special Designation and Social and Economic Considerations. Within these subgroups programs are listed alphabetically, as follows:

> **Resources:** Air and Atmospheric Values, Biological Resources, Cave and Karst Resource, Cultural Resources, Lands with Wilderness Characteristics, Paleontological Resources, Soil Resources, Water Resources, Wildland Fire Ecology and Management, and Visual Resources.
>
> **Resource Uses:** Comprehensive Trail and Travel Management, Lands and Realty, Livestock Grazing, Minerals Management, Recreation and Visitor Services (including Environmental Education and Interpretation).
>
> **Special Designations:** Areas of Critical Environmental Concern, Back Country Byways, National Trails, Outstanding Natural Areas, Wild and Scenic Rivers, and Wilderness and Wilderness Study Areas.
>
> **Social and Economic Considerations:** Public Safety and Health, Social and economic values and Tribal Interests.

Programs are organized in the same fashion throughout the remainder of the document.

CHAPTER THREE - AFFECTED ENVIRONMENT

This chapter describes the Bakersfield FO Planning and Decision Area and the existing environmental conditions that could be impacted by implementation of the alternatives.

CHAPTER FOUR - ENVIRONMENTAL CONSEQUENCES

This chapter forms the scientific and analytic basis of the environmental impacts of each alternative, including the No Action Alternative.

Impacts generally are described in terms of direct or indirect, short-term or long-term, and minor, moderate, or major, when applicable. Potential cumulative and unavoidable impacts and irreversible and irretrievable commitments also are discussed in this chapter.

CHAPTER FIVE - PUBLIC INVOLVEMENT, CONSULTATION, AND COORDINATION

This chapter describes the public involvement process, as well as other key consultation and coordination activities undertaken to prepare the EIS in support of the RMP revision. This chapter also includes a list of preparers displaying the names and resource topics each individual was responsible for preparing.

CHAPTER SIX – REFERENCES

This chapter provides full citation information for all references cited within the document.

GLOSSARY

The Glossary defines selected terms used throughout this document.

APPENDICES

The appendices include documents that support existing resource conditions or situations, substantiate analyses, provide resource management guidance, explain processes, or provide information directly relevant or supporting conclusions in the Draft RMP/Draft EIS.

Acreage and Geographic Information System Calculations

The majority of acreage and miles in this document are calculated using Geographic Information Systems (GIS). The use of GIS spatial analysis can provide precise acreage calculations; however, for the ease of reading these values have been rounded. It should be noted that the acreage values are only as accurate as the data that is entered. Various factors can affect the accuracy of data including data collection and entry, scale, and timeframe. Until these calculations are confirmed through field surveys using a Global Positioning System, all GIS calculations are for reference and comparative purposes only.

ACRONYMS AND ABBREVIATIONS

<	less than
ACEC	Area of Critical Environmental Concern
AML	Abandoned Mine Land
APCD	Air Pollution Control District
APD	Application for Permit to Drill
ARPA	Archeological Resources Protection Act
ATV	All Terrain Vehicle
AUM	animal unit month
BLM	US Department of the Interior, Bureau of Land Management
BMP	Best Management Practice
BOR	Bureau of Reclamation
CAA	Clean Air Act
CALIPC	California Invasive Plants Council
CAL FIRE	California Department of Forestry and Fire Protection
CARB	California Air Resources Board
CDFG	California Department of Fish and Game
CDOGGR	California Division of Oil, Gas, and Geothermal Resources
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CNPS	California Native Plant Society
CIAA	cumulative impacts assessment area
COA	Conditions of Approval
CPNM	Carrizo Plain National Monument
CSU	Controlled Surface Use
CTTM	comprehensive trails and travel management
CWA	Clean Water Act
CWCG	California Wildfire Coordinating Group
DOD	US Department of Defense
EA	environmental assessment
EIS	environmental impact statement
EO	Executive Order
EPA	US Environmental Protection Agency
ERMA	extensive recreation management area
ESA	Endangered Species Act of 1973
ESR	emergency stabilization and rehabilitation
FLPMA	Federal Land Policy and Management Act
FMP	fire management plan
FMU	Fire Management Unit
FRCC	fire regime condition class
GIS	Geographic Information System
GPS	Global Positioning System
HCP	habitat conservation plan
KCAPCD	Kern County Air Pollution Control District
LWCF	Land and Water Conservation Fund
LUP	Land Use Plan
MIST	Minimum impact suppression tactics
MOA	Memorandum of Agreement

NAAQS	National Ambient Air Quality Standards
NCLWMA	National Cooperative Land and Wildlife Management Area
NEPA	National Environmental Policy Act of 1969
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NLCS	National Landscape Conservation System
NOA	Naturally Occurring Asbestos
NMFS	National Marine Fisheries Service
NPR	Naval Petroleum Reserve
NPS	US Department of the Interior, National Park Service
NRHP	National Register of Historic Places
NSO	No Surface Occupancy
NWSRS	National Wild and Scenic Rivers Systems
OHV	off-highway vehicle (previously ORV – Off-road vehicle)
ONA	Outstanding Natural Area
ORV	outstandingly remarkable value
PCNST	Pacific Crest National Scenic Trail
PFC	proper functioning condition
PFYC	Potential Fossil Yield Classification
PM2.5	particulate matter smaller than 2.5 microns in diameter
PM10	particulate matter smaller than 10 microns in diameter
RFD	reasonably foreseeable development
RMA	Recreation Management Area
RMIS	Recreation Management Information System
RMP	resource management plan
RMZ	recreation management zone
ROD	Record of Decision
ROW	right-of-way
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SJRG	San Joaquin River Gorge
SMA	Special Management Area
SOP	Standard Operating Procedure
SRMA	Special Recreation Management Area
SRP	special recreation permit
TCP	traditional cultural practice
T&E	Threatened and Endangered
US	United States
USC	United States Code
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
USFS	United States Department of Agriculture, Forest Service
USFWS	US Department of the Interior, Fish and Wildlife Service
USGS	US Geological Survey
VRI	Visual Resource Inventory
VRM	visual resource management
WSA	wilderness study area
WSR	wild and scenic river
WUI	wildland urban interface

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CHAPTER ONE

CHAPTER ONE – INTRODUCTION
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1.1 INTRODUCTION

The US Department of the Interior, Bureau of Land Management (BLM), has prepared this draft resource management plan (RMP) and environmental impact statement (EIS). This RMP provides direction for managing public lands under the administrative jurisdiction of the BLM's Bakersfield Field Office (Bakersfield FO) in an eight-county region of central California; the EIS analyzes the environmental effects that could result from implementing the alternatives defined in this RMP. The regional area is referred to as the Planning Area.

Public lands within the Planning Area are currently being managed under the Caliente RMP, the Hollister RMP, and two RMPs covering public lands within the California Coastal National Monument (CCNM, September 2005) and the Carrizo Plain National Monument (CPNM, April 2010). The Caliente RMP, completed in 1997, covers public lands in San Luis Obispo, Santa Barbara, Ventura, Kings, Tulare, and western Kern Counties. The Hollister RMP, completed in 1985 by the Hollister Field Office, covers lands in Madera and eastern Fresno Counties, which were administratively transferred to the Bakersfield FO in October 2000. This document does not address public land management within the CCNM or the CPNM, except for livestock grazing management in a small portion of the CPNM. Within the Planning Area, public lands managed by BLM are referred to as the Decision Area.

The RMP is being prepared using BLM planning regulations and guidance issued under the authority of the Federal Land Policy and Management Act (FLPMA) of 1976 (43 US Code [USC], 1701 et seq.), (BLM 1976) and the BLM's Land Use Planning Handbook, H-1601-1 (BLM 2005a). An EIS is incorporated into this document to meet the requirements of the National Environmental Policy Act of 1969 (NEPA), Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 Code of Federal Regulations [CFR], 1500-1508) (CEQ 1978), and requirements of the BLM's NEPA Handbook, H-1790-1 (BLM 1988).

1.2 PURPOSE AND NEEDS FOR THE PLAN

The purpose of this RMP is to review existing management and establish goals, objectives, and management actions for BLM public lands that address current issues, knowledge, and conditions.

The need for revision of the 1997 Caliente Resource Management Plan (RMP) stems from several factors including: a) the recent completion of RMPs for two areas (now known as the CCNM, and the CPNM) previously covered in the 1997 plan, b) the transfer of public lands from the Hollister to the Bakersfield Office, c) the acquisition of new lands, and d) guidance provided in 43 CFR 1610.5-5 that recommends amending or revising an RMP to: (i) implement new and revised policies that change land use planning level decisions; (ii) respond to new, intensified or changed uses of public land; and (iii) consider significant new information from resource assessments, monitoring or scientific studies that change land use decisions. This revision effort is specifically needed to address the following major changes:

- In January 2000, President Clinton established and included the California Coastal National Monument (CCNM) in the BLM's National Landscape Conservation System (NLCS). The monument consists of more than 20,000 rocks and islands that are spread along the 1,100-mile California coastline; of which approximately 230 miles fall within the Bakersfield FO. In September 2005, a separate RMP was approved providing guidance and direction for the CCNM. As such, the CCNM RMP (as opposed to the Caliente RMP) now controls land use within the monument.
- In October 2000, the Bakersfield FO acquired management responsibility for the public lands in Madera and eastern Fresno Counties, which are managed under the 1985 Hollister RMP. The San Joaquin River Gorge was among the lands transferred.
- In January 2001, President Clinton designated the Carrizo Plain National Monument (CPNM) and included it in the BLM's NLCS. In April 2010, a separate RMP was approved, covering the approximately 206,000 acres of public lands within the CPNM. As such, the CPNM RMP (as opposed to the Caliente RMP) now controls land use within the monument.
- In March 2001, the BLM began to acquire several thousand acres of land in southwestern Tulare County and eastern Kings County, at Atwell Island. Acquired under the auspices of the Central Valley Project Improvement Act, there was no specific direction for these lands within the 1997 Caliente RMP.
- In May 2002, the US Coast Guard transferred the Piedras Blancas Light Station to the BLM. This action created an opportunity for public benefits that were unanticipated by the Caliente RMP. In May 2008, President George W. Bush signed a law designating Piedras Blancas Light Station as an Outstanding Natural Area and including it in the BLM's NLCS.
- In 2005, Congress transferred to the BLM most of the Naval Petroleum Reserve Number 2, consisting of 10,451 acres in southwestern Kern County. The Caliente RMP was immediately amended to provide for leasing oil and gas, but other management decisions were postponed until a future planning effort could be completed.

Like California as a whole, the Planning Area has undergone many changes since the completion of the Hollister and Caliente RMPs, resulting in a tremendous increase in the demand for, and the use of, public lands. The driving forces have been the rapid increase in California's population and the critical need for domestic energy production. While California's overall population increased by 9 percent, the last ten years of population growth in the Planning Area ranged from 2 percent in Santa Barbara County to 22 percent in Kern County (U.S. Census 2010). Increased population means increased demands for public lands for recreation and increased impacts to public lands from both authorized and unauthorized activities. People living in rural communities next to public lands have a desire to use public lands as fuel breaks and to preserve open space around their communities to help maintain the rural atmosphere. The national focus on increased domestic oil and gas production and the development of renewable energy has placed additional requests for use of public lands. These increased demands and uses of public lands present some complex management issues that can best be addressed by an updated land use plan.

The revised Bakersfield RMP provides an updated assessment of resources; a review of land uses, conditions, and trends; a forum for enhanced public collaboration and involvement; and a comprehensive impact analysis of reasonable management alternatives and resulting land use decisions.

1.3 DESCRIPTION OF THE PLANNING AREA

1.3.1 PLANNING AREA

The Bakersfield FO administrative boundary defines the Planning Area assessed in this RMP revision. The Bakersfield FO Planning Area encompasses about 17 million acres throughout Kings, San Luis Obispo, Santa Barbara, Tulare, Ventura, Madera, eastern Fresno, and western Kern Counties and includes all lands within the administrative boundary regardless of jurisdiction or ownership (Map 1.1.). With a variety of settings and landforms, this is a region of diverse topography and landscapes, and extraordinary biodiversity. Elevations range from sea level to more than 14,500 feet at Mount Whitney. Table 1.1, presents land status within the Planning Area.

Table 1.1
Land Status within the Planning Area

Land Status	Acres	Percentage of Planning Area
BLM	612,137	3.5
US Bureau of Reclamation	12,084	0.1
US Forest Service	4,084,317	23.6
US Fish and Wildlife Service	33,296	0.2
National Park Service	1,030,378	5.9
Bureau of Indian Affairs	59,830	0.3
Other Federal	2,052	0.01
State of California	108,989	0.6
Local Government	11,794	0.07
Military	181,993	1.1
Private	11,182,537	64.6
Total	17,319,347	100

Source: BLM 2010a

Legend

- Bakersfield Field Office
- County Boundary

Land Status

- Bureau of Land Management
- US Forest Service
- National Park Service
- Bureau of Reclamation
- US Fish and Wildlife Service
- Military
- Indian Lands
- City, County, Regional, Other Federal
- State
- Private, Unclassified

Planning Area
Bureau of Land Management
Bakersfield Field Office

Map 1.1

1.3.2 DECISION AREA

While the Planning Area encompasses the entire area within the boundaries of the Bakersfield FO regardless of jurisdiction or ownership, the Bakersfield FO *Decision Area* encompasses about 400,000 acres of public lands surface and minerals, and 750,000 acres of mineral estate only. Stretching from the coastal islands in the Pacific Ocean across the Central Valley to the crest of the Sierra Nevada, these public lands are scattered across the Planning Area in numerous parcels of various size. The larger blocks of public land lie adjacent to the CPNM, in the Three Rivers-Kaweah River region of Tulare County, and in the Lake Isabella-Chimney Peak-Walker Pass region of Kern and Tulare counties. The Bakersfield FO Decision Area does not include the CPNM[1] or the CCNM, which are managed by the Bakersfield FO under different, site-specific RMPs. The Decision Area also includes subsurface minerals on approximately 550,000 acres of "split estate" (areas where the BLM manages federal subsurface minerals but the surface is owned by a non-federal entity) as well as subsurface minerals on approximately 200,000 acres where the surface is managed by other Federal agencies. These combined areas (about 1.2 million acres) constitute the area for which the BLM has authority and makes decisions (i.e. the Decision Area) under this plan revision (Map 1.2). Table 1.2, summarizes the Decision Area.

Table 1.2
Land Status within the Decision Area

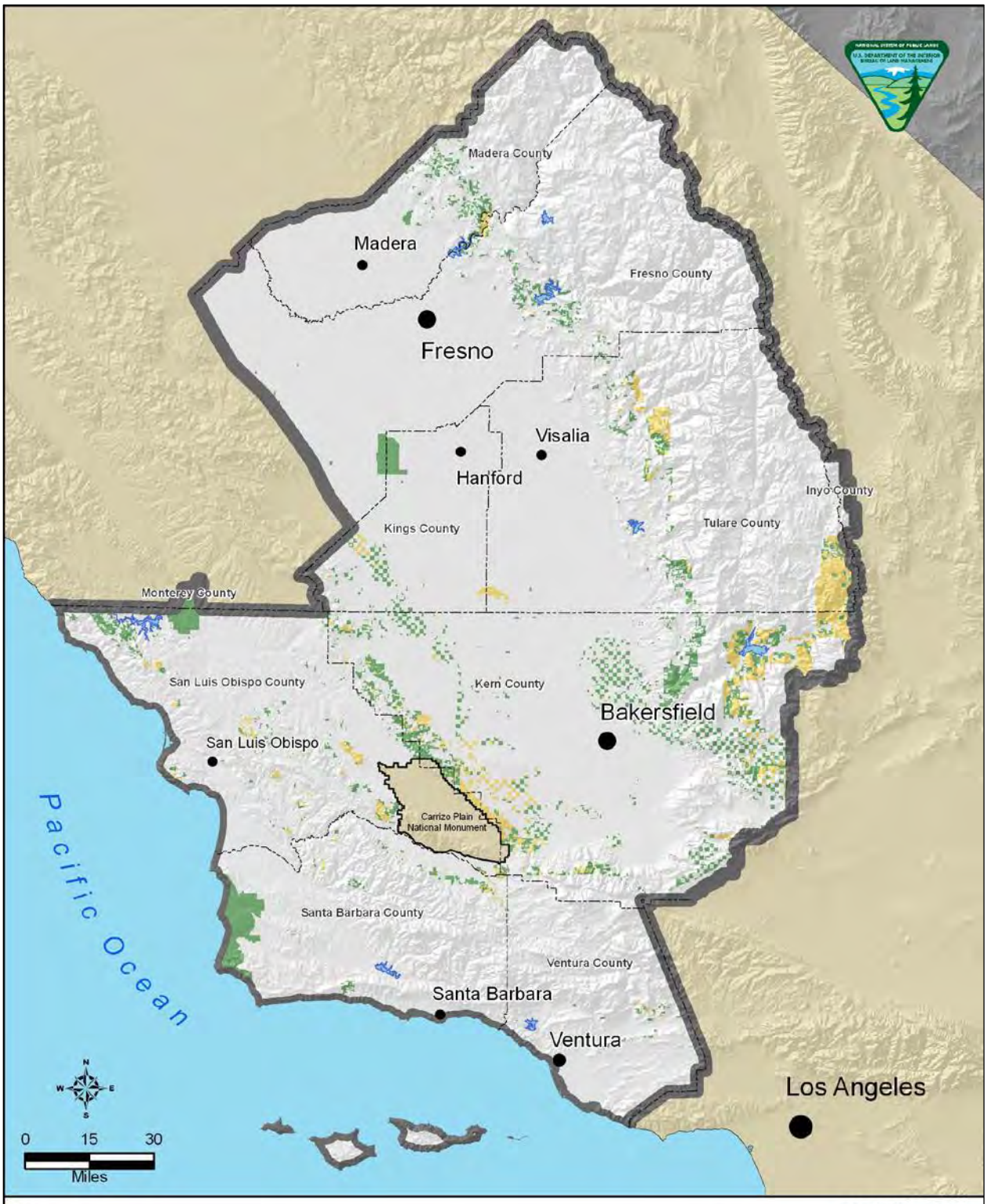
Land Status	Acres	Percentage of Decision Area
BLM Surface Only	8,194	0.7
BLM Surface and Mineral Estate	395,745	33.8
Mineral Estate with Other Federal Surface	195,303	16.7
Split Estate	571,162	48.8
Total BLM Surface	403,939	-
Total BLM-Administered Mineral Estate	1,162,210	-
Total Decision Area	1,170,404*	100

Source: BLM 2010a

The Decision Area does not include other private lands, state lands, tribal lands, federal lands not administered by the BLM, and public lands within the CCNM and CPNM, except for livestock grazing management in a small portion of the CPNM.

While the RMP decisions do not apply to lands not administered by the BLM, lands that are interspersed with BLM-managed public lands could be indirectly affected by BLM management actions. The planning effort recognizes that nearby lands, communities, resource values, and uses could all be affected by management of the Bakersfield FO Decision Area; in turn, their use and values affect BLM management of public lands. The plan includes recommendations for the BLM to work with entities that manage areas or programs that are not under its jurisdiction, but that directly

[1] Except the small portions of the CPNM where it covers livestock grazing management alone.



Legend

Bakersfield Field Office

County Boundary

Decision Area

Public Lands

Federal Mineral Estate

Decision Area
Bureau of Land Management
Bakersfield Field Office

Map 1.2

affect BLM's management (such as county governments, tourism information groups, and hunting organizations). However, final decisions regarding actions outside the Decision Area rest with the appropriate agency or community government, and not with the BLM.

1.4 SCOPING AND PLANNING ISSUES

1.4.1 SCOPING PROCESS

A Notice of Intent (NOI) to develop the Bakersfield RMP and associated EIS was published in the *Federal Register* on March 4, 2008 (Volume 73, Number 43, pages 11661-11662). This initiated the public scoping period. A news release was also submitted to local and regional media and posted on BLM's Web site.

The Bakersfield FO hosted several public meetings. Agencies and the public were encouraged to submit oral and/or written comments regarding management of public lands in the Planning Area. The formal scoping period ended on May 3, 2008 (approximately 60 days). Although the BLM accepts comments at any time during the planning process, comments received during the scoping period are particularly helpful in guiding the development of alternatives. All of the comments received by November 22, 2010 were compiled, reviewed, and analyzed. Issues were derived from these comments.

1.4.2 ISSUES ADDRESSED

Public scoping analysis in combination with bureau policy, directives and guidance resulted in the identification of six planning issues that were addressed during development of alternatives. Planning issues are disputes or controversies about existing and potential land and resource allocations, levels of resource use, production, and related management practices. Usually, the causal relationship between the activity or use and undesirable results are well defined or can be documented, and the level of controversy is high enough to merit further analysis. Statement of the planning issues orients the planning process so that interdisciplinary thought, analysis, and documentation is directed toward resolving the planning issues during preparation of the RMP.

Issue 1: *Adequately address the need for access to and continued availability of, public lands for multiple recreational uses and open spaces.*

The enormous increase in population in the Planning Area has intensified the demand for open space and recreation opportunities on public land. Not only has demand increased, but the kinds of recreation taking place on public lands have also increased, and conflicts are developing including impacts from unauthorized activities. Coupled with this is the scattered nature of much of the public land parcels, many of which lack legal access.

Issue 2: *Establish a balance between the extent of the travel network and the protection of natural and cultural resources, including an appropriate allocation of routes to the various modes of transport.*

The BLM travel network is used by a wide range of users including commercial, domestic, and recreation users. There is some demand for new trail systems, especially from the OHV interest groups within the community (to increase opportunities for different skill levels and modes of travel); however, the ongoing proliferation of illegal routes has resulted in the damage to natural and cultural resources, and conflicts between the various user groups. BLM needs to coordinate with other managers of travel networks, such as private interests, the State, and other federal agencies and contribute toward a regional solution to the issue.

Issue 3: *Ensure appropriate protection for Threatened and Endangered species, critical habitat, other biological resources, and cultural and paleontological resources in a multiple-use environment.*

The diverse landscapes and the extraordinary biodiversity present within the Planning Area present a unique challenge in managing public lands and resources in a rapidly growing region with a diversity of public demands. Since the 1997 Caliente RMP was completed, the USFWS has listed as threatened or endangered at least an additional 11 plants and animals potentially found on public lands within the Bakersfield FO for a total of 86 federally listed species. Loss and degradation of natural habitat continues as California's population grows, increasing the importance of BLM lands for conservation goals. The balance between the conservation of biological, cultural, and paleontological resources with the demand for other land uses is an ongoing issue.

Issue 4: *Continue to appropriately manage livestock grazing to provide for economic benefit, rural lifestyles and vegetation management while protecting other resources.*

Livestock grazing plays an important role on the landscape in terms of rural lifestyles, local economies, and maintaining the legacy of the "West." Management of livestock grazing into the future needs to incorporate the best science and adaptive management methods to ensure protection of other resources. In addition, explore the utilization of livestock grazing as a vegetation management tool to meet resource objectives (such as wildlife habitat and fire management).

Issue 5: *Balance the demand for energy development (including oil and gas, wind, and solar energy) and other land use authorizations (such as road and transmission corridor rights-of-way) with other resource values.*

Implementing the multiple-use mandate from FLPMA includes balancing the economic use of public resources, while providing for appropriate stewardship of public lands and the protection of natural and cultural resources. The economic uses involve both renewable and nonrenewable resources and include energy development (primarily oil and gas, wind, and solar), other mineral extraction, and land use authorizations such as road and transmission corridor rights-of-way. With the increasing demand for sources of domestic energy from public lands, the ability to balance these immediate goals with the protection of public lands for the use and enjoyment of future generations becomes more challenging.

Issue 6: *Address the impacts of climate change on the management of public lands, including strategies that will reduce impacts and incorporate appropriate monitoring.*

The temperature of the planet's atmosphere is regulated by a balance of radiation received from the sun and the amount of that radiation absorbed by the earth and atmosphere. Greenhouse gases (e.g. carbon dioxide and methane), as well as water vapor and particulate matter in the atmosphere keep the planet's temperature warmer than it would be otherwise, allowing the planet to sustain life. While these gasses and particles have occurred naturally for millennia, there has been a marked increase in their atmospheric concentration since the start of the industrial age, contributing to the observed climatic variability beyond the historic norm. As appropriate, this plan describes (1) the effects that a changing climate may have on the resources in the Planning Area, and (2) how the reasonably foreseeable activities under each alternative would affect climate change (discussed as part of *Air and Atmospheric Values* in Chapters 3 and 4).

1.4.3 ISSUES CONSIDERED BUT NOT FURTHER ANALYZED

During the public scoping process, several concerns/issues were raised by the public and identified by the IDT as outside the scope of the planning effort. Other comments represented questions on how the BLM would go about conducting the planning process and implementation of land use plan decisions. Comments on these items are valuable and appreciated, even though they are outside the scope of an RMP. These comments will be considered when decisions are made on implementation plans, proposed projects, or day-to-day management.

Three concerns were commonly expressed:

- The need for adequate law enforcement personnel and patrols throughout the Bakersfield Field Office – Some members of the public expressed the desire for a resident law enforcement ranger or park ranger in their local area. Staffing issues are not typically addressed in land use plans; they are more appropriately addressed administratively.
- Increasing the use of volunteers and partnerships to assist in managing public lands and resources – Recruitment and opportunities for volunteers and partnerships are ongoing BLM activities that are means of implementing an RMP.
- The adequacy of budget and staffing to ensure implementation of the RMP – The RMP alternatives will be based on an optimal but reasonable assessment of the level of management needed. However, the RMP is not a budget document and alternative development is not based on specific funding projections.

1.5 PLANNING CRITERIA AND LEGISLATIVE CONSTRAINTS

1.5.1 PLANNING CRITERIA

Planning criteria are the standards, rules, and guidelines that help to guide the development of the RMP, to ensure it is tailored to the identified issues, and to deter unnecessary data collection and

analysis. They also help guide the development of alternatives and the selection of the preferred alternative. Planning criteria are based on applicable laws and regulations, agency guidance, and the result of consultation and coordination with the public, other federal, state, and local agencies, and Native American tribes.

Preliminary planning criteria were developed before public scoping meetings to set the focus for the Bakersfield RMP and to guide decision making by topic. These preliminary planning criteria were included in Notice of Intent, published in the *Federal Register*, and were posted on the project web site for public comment during the 60-day scoping period. The planning criteria presented during the scoping process are as follows;

- The plan will establish new guidance and identify existing guidance for the BLM in managing public lands within the Bakersfield FO;
- The plan will be completed in compliance with FLPMA and all other applicable laws;
- The planning process will include an environmental impact statement that will comply with NEPA;
- The RMP/EIS will incorporate by reference the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing Management;
- The RMP/EIS will incorporate by reference all prior Wilderness designations and Wilderness Study Area findings that affect public lands in the Planning Area;
- The plan will provide determinations as required by special program and resource-specific guidance detailed in Appendix C of the BLM's Planning Handbook;
- Decisions in the plan will strive to be compatible with the existing plans and policies of adjacent local, state, tribal, and federal agencies, as long as the decisions are in conformance with BLM policies on management of public lands;
- The scope of analysis will be consistent with the level of analysis in approved plans and in accordance with BLM-wide standards and program guidance;
- Resource allocations must be reasonable and achievable within available technological and budgetary constraints;
- The lifestyles and concerns of area residents will be recognized in the plan;
- All lands within the CCNM and the CPNM—both of which are addressed under separate RMPs, will not be included in the Bakersfield RMP, except for livestock grazing management in a small portion of the CPNM;
- The plan will include Piedras Blancas Historic Light Station Outstanding Natural Area and identify goals, standards, and objectives for this area.
- Decisions and management actions within the existing plans will be evaluated; those that are determined to still be valid will be carried forward into this revised RMP; and
- Geospatial data within a geographic information system (GIS) will be used to facilitate discussions of the affected environment, alternative formulation, analysis of environmental consequences, and display of the results.

The public was encouraged to comment on and to suggest additions to these criteria at the meetings and through correspondence with the BLM. Although no specific criteria differing from those above were suggested by the public during scoping, many commenters supported the method provided by these principles to evaluate the issues. The public encouraged the BLM to use criteria and standards for as many decisions as possible, making it easier to manage site-specific activities during implementation-level management phases.

1.5.2 LEGISLATIVE CONSTRAINTS

The BLM administers public lands within a framework of numerous laws. The most comprehensive of these is the Federal Land Policy and Management Act of 1976 (FLPMA). All BLM policies, procedures, and management actions must be consistent with FLPMA and the other laws that govern use of the public lands. In FLPMA, Congress established the principle of "multiple-use" management; defined, in part, as "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."

In addition to the legislative and procedural agency guidance for the preparation of the RMP, many legislation constraints have contributed to the scope and management direction for this document and the planning criteria described previously. A few examples of such are provided below:

- Endangered Species Act of 1973, as amended;
- Mineral Leasing Act of 1920;
- National Historic Preservation Act of 1966, as amended;
- Taylor Grazing Act of 1934, as amended;
- Wilderness Act of 1964;

The list provided above is in no way exhaustive and many other legislative acts, laws and regulations are cited throughout the document as appropriate.

1.6 PLANNING PROCESS

As provided by FLPMA, the BLM is responsible for planning for and managing public lands. The process for the development, approval, maintenance, and amendment or revision of RMPs was initiated under the authority of Section 202(f) of FLPMA and Section 202(c) of NEPA. BLM planning regulations in 43 CFR, 1600, and the CEQ regulations in 43 CFR, 1500, guide the process. Preparation of an RMP/EIS involves the following ten interrelated steps:

Step 1 – Planning Issues Identified: Issues and concerns are identified through a scoping process that includes the public, Native American tribes, other Federal agencies, and State and local governments.

Step 2 – Planning Criteria Development: Planning criteria are created to ensure that decisions are made to address the issues pertinent to the planning effort. Planning criteria are derived from a variety of sources, including applicable laws and regulations, existing management plans, coordination with other agencies' programs, and the results of public and agency scoping. As planning proceeds, planning criteria may be updated or changed.

Step 3 – Data and Information Collection: Based on planning criteria, data and information for the resources in the Bakersfield FO are collected.

Step 4 – Analyze the Management Situation: The collected data and information are assembled into the Analysis of the Management Situation (AMS) and described in Chapter 3 – Affected Environment of this document.

Step 5 – Alternatives Formulation: A range of reasonable management alternatives that address issues identified during scoping is developed.

Step 6 – Alternatives Assessment: The environmental effects of each alternative are estimated and analyzed.

Step 7 – Preferred Alternative Selection: The alternative that best resolves planning issues is identified as the Preferred Alternative.

Step 8 – Resource Management Plan Proposed: A Draft RMP/Draft EIS is issued and made available to the public for a review period of 90 calendar days. During the public review period, the BLM holds additional public meetings to further explain the Draft RMP/Draft EIS, address public questions, and accept comments in writing.

After comments to the draft document have been received and analyzed, the Draft RMP/Draft EIS is revised and modified, as necessary, and the Proposed RMP/Final EIS is published and made available for public review for 30 calendar days.

Step 9 – Decision: A ROD will be signed for the Approved Resource Management Plan after all protests have been resolved.

Step 10 – Implementation and Monitoring: Upon approval of the ROD, land use decisions outlined in the Approved Resource Management Plan would be effective immediately and would require no additional planning or NEPA analysis.

Consistent with BLM Land Use Planning Handbook H-1601-1, the BLM will monitor plan implementation and effectiveness, and will report periodically on:

- the management actions undertaken;
- the management actions remaining to be undertaken; and
- the effectiveness of those actions toward meeting goals and objectives.

Monitoring strategies would be developed that identify indicators of change, acceptable thresholds, methodologies, protocols, and timeframes that would be used to evaluate and determine whether desired outcomes are being achieved.

1.6.1 RELATIONSHIP TO BLM POLICY, PLANS AND PROGRAMS

The BLM has three principal levels of land use planning decisions: 1) the RMP level; 2) the activity level; and 3) the site-specific level. This Draft RMP/Draft EIS focuses on establishing broad resource objectives and direction while, at the same time, providing some activity-level guidance and site-specific decisions. Site-specific decisions are usually tied to a specific location, resource, or activity and generally require their own NEPA. Where this RMP makes these site-specific decisions (e.g., route designations) this EIS fulfills the NEPA requirement.

Once approved, the Bakersfield RMP will replace the applicable portions of the 1985 Hollister RMP, the 1997 Caliente RMP, and their amendments. However, there are other associated BLM plans that have been considered in this plan revision as identified in Table 1.3.

Table 1.3
Associated BLM Management Plans

Document	Year
Bakersfield Field Office Fire Management Plan	2008
Carrizo Plain National Monument ROD/ARMP	2010
California Coastal National Monument ROD/ARMP	2005
Piedras Blancas Light Station ONA Interpretive Plan	2008
Piedras Blancas Light Station ONA Management Plan	2007
Southern Sierra (Westside) Management Plan [*Wilderness*]	1999

In addition to existing plans, a number of policies, national programmatic EISs, and program guidance documents (BLM Handbooks and Manual sections) were reviewed for consistency during the development of the RMP. These policies and guidance area referenced throughout the document.

1.7 COLLABORATION

The Bakersfield FO conducts many activities that require coordination with tribes, the State, other agencies, and interested public. Coordination has been ongoing throughout this planning effort. Coordination is accomplished as a matter of course when implementing land use plan decisions through project development and site-specific activities. Key coordination efforts include those described below. Additional details about the public and agency involvement process are presented in Chapter 5 – Consultation and Coordination.

1.7.1 INTERGOVERNMENTAL, INTERAGENCY AND TRIBAL RELATIONSHIPS

The formal process by which the BLM engages other governmental entities (other federal agencies, state agencies and local governments) in the planning process is through Cooperating Agency status.

Cooperating agency status provides a formal framework for governmental agencies to engage in active collaboration with a Federal agency to implement the requirements of the National Environmental Policy Act (NEPA, 42 U.S.C. 4321, et seq.). Federal and state agencies and local and tribal governments may qualify as cooperating agencies because of "jurisdiction by law or special expertise" (40 CFR 1501.6 and 1508.5).

The agencies in the following list were approached by the Bakersfield FO to participate in the RMP process. The California Department of Fish and Game accepted the invitation and designated a lead specialist to work directly with BLM. The remainder of the invitees wished to remain abreast of the planning process, but declined formal cooperating agency status.

- California Department of Fish and Game
- Fresno County
- Kern County
- Kings County
- Lemoore Naval Air Station
- Madera County
- National Park Service
- Naval Base Ventura County Point Mugu
- San Luis Obispo County
- Santa Barbara County
- Tulare County
- US Fish and Wildlife Service
- US Forest Service
- Ventura County
- Vandenberg Air Force Base

Native Americans are formally engaged in the planning process, as with many other federal actions, through a process of consultation. Legislation, policy and guidance require the BLM to consult with Native American tribes regarding any actions conducted by the agency which have the potential to affect places of traditional or religious importance to them. As such, the Bakersfield FO initiated contact on April 4, 2008 in conjunction with the public scoping process; the formal government-to-government consultation was initiated during the preparation of this Draft RMP/Draft EIS with eight federally recognized tribes as follows:

- Big Sandy Rancheria
- Cold Springs Rancheria
- North Fork Rancheria of Mono Indians
- Picayune Rancheria of Chukchansi Indians
- Santa Ynez Band of Chumash Indians
- Table Mountain Rancheria
- Tachi Yokut Tribe of the Santa Rosa Rancheria
- Tule River Reservation

This consultation included a certificated notification letter describing the RMP and planning process with follow up to include an invitation for face-to-face meetings with the Field Manager and tribal leadership.

In addition to these federally recognized Tribes, the Bakersfield FO engaged with many non-federally recognized Native American tribes, groups, and individuals.

Beyond formal cooperating agency status and tribal consultation, the BLM is required to maintain relationships with US Fish and Wildlife Service (USFWS) and the California State Historic Officer (SHPO). This consultation is required for compliance with Section 7 of the *Endangered Species Act (ESA),* and Section 106 of the *National Historic Preservation Act (NHPA).*

In compliance with Section 7 of the ESA the BLM is currently operating under Biological Opinions (BOs) the USFWS has issued for management activities: the *March 31, 1997 Caliente RMP Biological Opinion 1-1-97-F-64*, which serves as a comprehensive BO for activities conducted under that RMP and the *2001 Oil and Gas Programmatic Biological Opinion 1-1-01-F-0063*, which outlines certain criteria oil and gas related projects within a specific geographic area must meet to be authorized without a separate consultation. These BOs were based on management in existing Land Use Planning documents and would be carried forward as the No Action Alternative. Regardless of which alternative is selected, new BOs would be sought from USFWS to adequately new information regarding listed species.

1.7.2 OTHER STAKEHOLDER RELATIONSHIPS

Throughout the planning process the Bakersfield FO continues to be engaged with numerous user groups, public land stakeholders, and interested individuals. These efforts include Travel Management oriented public meetings, Recreation-focused listening sessions, Social and economic workshops, and various briefings, presentations, and personal communications. These stakeholder groups include representatives for environmental advocacy groups, commercial enterprises, community groups, and groups representing recreational users. In addition, regular briefings have been presented to the Central California Resource Advisory Council and updates provided to its various subcommittees.

1.8 RELATED PLANS

Title II, Section 202 of the FLPMA provides guidance for the land use planning process of the BLM to coordinate planning efforts with Native American Indian tribes, other federal departments, and agencies of state and local governments. To accomplish this directive, the BLM is instructed to keep informed of state, local, and tribal plans; assure that consideration is given to such plans; and to assist in resolving inconsistencies between such plans and federal planning. The section goes on to state in Subsection(c)(9) that "Land use plans of the Secretary [of the Interior] under this section shall be consistent with state and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act." The provisions of this section of the FLPMA are echoed in Section 1610.3 of BLM Resource Management Planning regulations.

1.8.1 OTHER FEDERAL AGENCY PLANS

Other federal agencies manage lands and resources in and next to the Bakersfield FO Planning Area. The Draft RMP/Draft EIS strives for consistency with plans pertaining to these lands, including the following:

- Final Environmental Impact Statement and Record of Decision for Oil and Gas Leasing, Los Padres National Forest, July 2005;
- Sequoia National Forest Motorized Travel Management Final Environmental Impact Statement and Record of Decision, December 2009;
- USFWS recovery plans for endangered species—Recovery Plan for the California condor (1996), Recovery Plan for Upland Species for the San Joaquin Valley (1998), Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (2005); and the Recovery Plan for the Kern Primrose Sphinx Moth (1984).
- National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR, 300) (1994, revised 2007);
- Forest Land and Resource Management Plans (Los Padres, Sequoia, Sierra National Forests).

1.8.2 STATE AGENCY PLANS

A complex land ownership pattern within the Planning Area influences BLM coordination with agencies administering California State lands and resources. While several agreements exist between state agencies and the BLM, the RMP revision offers a unique opportunity to promote interagency cooperation to enhance natural resource management. For example, two large areas have been managed cooperatively with the CDFG as National Cooperative Land and Wildlife Management Areas (Temblor and Monache-Walker Pass) to benefit wildlife resources and recreation opportunities. The BLM and CDFG also coordinate in managing state ecological reserves within the Planning Area. The BLM and California State Parks coordinate management of their lands to ensure consistency for adjoining parcels.

1.8.3 COUNTY PLANS

The BLM routinely coordinates management activities across its scattered land pattern within the eight counties in which there is BLM surface or mineral ownership. County supervisors, planners, fire personnel, and local law enforcement are the primary points of coordination. While specific planning efforts for the RMP and the county general plan provide an opportunity to evaluate consistency, the process of coordination and consistency review is ongoing. The general plan implementation dates for each of the eight counties with federal surface ownership are listed below:

- Fresno County General Plan (2000);
- Kern County General Plan (2007);
- Kings County General Plan (1998);
- Madera County General Plan (2004);
- San Luis Obispo County General Plan (2004);
- Santa Barbara County General Plan (2009);
- Tulare County General Plan (2005, revised 2010);
- Ventura County General Plan (2005);

1.9 POLICY

This plan is consistent with and incorporates requirements identified in various laws, regulations and policies. These include Executive Orders, legislative designations, proclamations and court settlements/rulings. The policies and decisions that existed prior to this plan being written are outside the scope of the plan but have influenced the decisions, constrained the alternatives, and are needed to understand management of the area. The list of policies that have been reviewed, incorporated and otherwise contributed to the development of the alternatives is extensive. Examples of such policies include:

- Executive Orders 11988 and 11990 – for the management protection of floodplains and wetlands
- Executive Orders 13186 and 11514 – for the protection of biological resources and the environment
- Executive Orders 13175, 11593, 13007, 13287 and Secretarial Order 3206 - for the consultation and coordination with Tribal Governments and protection of cultural resources
- Executive Orders 11644 and 11989 – for the use of off-road vehicles on public lands
- Executive Order 12898 - to address Environmental Justice in minority and low-income populations
- Secretarial Orders 3283, 3285 and 3294 – addressing energy (renewable and traditional) development and management
- Secretarial Order 3289 – to address current and future impacts of climate change on America's land, water, wildlife, cultural-heritage and tribal resources

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CHAPTER TWO

CHAPTER TWO - ALTERNATIVES
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INTRODUCTION

This chapter details the proposed management actions for this BLM Bakersfield FO Draft RMP/Draft EIS. Twenty-three program areas and the management actions proposed for each program are described in this chapter. The land use management actions described in this chapter address identified issues, management concerns, and current and projected future uses of the lands administered by the Bakersfield FO.

The alternatives comprises two categories of land use planning decisions − (1) goals and objectives (desired outcomes) and (2) allowable uses and management actions (i.e., those described under the "Decisions" subheading within the descriptions of each alternative).

Goals and objectives direct BLM actions to most effectively meet legal mandates, regulations, and agency policy, as well as local and regional resource needs. Goals are broad statements of desired outcomes that are usually not quantifiable. Objectives identify more specific desired outcomes for resources and might include a measurable component. Objectives are generally expected to achieve the stated goals. The management goals and objectives for each resource are described in the detailed alternative descriptions section of this chapter.

Allowable uses identify uses that are allowed, restricted, or excluded on BLM-administered surface lands and federal mineral estate. Management actions are proactive measures or limitations intended to guide BLM activities in the Planning Area. In many cases the decision to restrict or prohibit an activity on public lands results in the need to create a supplementary rule in order to make that decision enforceable (e.g., the decision to prohibit shooting sports from an ACEC requires that a supplementary rule and associated penalties and punishments be created to allow for enforcement of the decision). To aid in reading the specific language of the proposed supplementary rules is not included in Chapter 2, as the decision indicates the intent and desired outcome of the rules and, therefore, analysis of the decision serves as the analysis of the proposed supplementary rule. Examples of specific supplementary rule language are provided for Alternative B in Appendix N.

In addition to land use planning level decisions, the RMP contains "Key Implementation" level decisions (presented under a subheading labeled as such) that would be implementable based on the level of analysis contained within this EIS. Principally, these decisions relate to the concurrent Travel Management Plan included as part of the RMP; however, other implementation level decisions are noted under the "Key Implementation Decisions" heading for Biological Resources and Livestock Grazing. It should be noted that only plan level decisions may be protested to the Director of the BLM, whereas implementation level decisions are subject to appeal to the Interior Board of Land Appeals after the Record of Decision has been approved.

Implementation level decisions considered during the development of the alternatives to achieve identified goals and objectives but that require more site-specific design and analysis are not analyzed in this EIS.

GENERAL DESCRIPTION OF ALTERNATIVES

The Draft RMP/Draft EIS presents a range of alternatives that reflect direction provided by numerous laws, mandates, policies, and plans. These include FLPMA, NEPA, and BLM planning regulations, criteria, and guidance. As a result, the alternatives analyzed in the Draft RMP/Draft EIS consist of different combinations of management actions and resource allocations or use. In addition to the alternatives discussed in detail, a number of alternatives were considered but not analyzed in detail as they are either impractical, do not adequately address the issues, or fail to meet the purpose and need. These alternatives are discussed in *Alternatives Considered but Not Analyzed in Detail* at the end of this chapter.

The five alternatives considered in detail in the Draft RMP/Draft EIS are as follows:

Alternative A continues current management practices as the No Action alternative required by NEPA. This alternative would continue current management under the existing 1997 Caliente RMP and 1984 Hollister RMP, as amended. Management of resources and sensitive habitats would remain at current levels but would not address emerging issues concerning public lands. This alternative also would not address the use of lands acquired after the signing of these RODs, including public lands at Atwell Island, Piedras Blancas Light Station, and portions of the San Joaquin River Gorge. When no specific management actions are described in the No Action alternative, management of lands and resources has been guided by BLM policy and interim management strategies.

Alternative B (preferred alternative) balances resource conservation and ecosystem health with the production of commodities and public use of the land. This alternative provides opportunities to produce commodities from natural resources and to use the land for public purposes on a sustainable basis while maintaining important ecological, cultural, and recreational values.

Alternative C emphasizes conserving cultural and natural resources, maintaining functioning natural systems, and restoring natural systems that are degraded. Management would focus on protecting sensitive resources through greater limitation of resource uses in sensitive areas.

Alternative D mimics[2] Alternative C in all aspects except livestock grazing. This alternative eliminates livestock grazing for the life of the plan from the public lands where Bakersfield RMP provides administrative direction for the livestock grazing program.

Alternative E emphasizes the production of natural resources commodities and public use opportunities. Resource uses such as recreation, livestock grazing, mining, and oil/gas leasing, consistent with BLM guidance and constraints, would be emphasized. Potential impacts on sensitive resources would be mitigated on a case-by-case basis.

[2] i.e., repeats objectives and management actions made in Alternative C including specific acreage allocation and designations.

2.1 ALTERNATIVE A (NO ACTION)

The following section summarizes the No Action Alternative; this alternative brings forward the existing management as described in the Caliente and Hollister RMPs including applicable amendments, as they apply to the Bakersfield Decision Area. Only those Land Use Plan (LUP) level decisions described in these plans are presented and summarized. In the absence of specific resource decisions management has occurred based on federal law, regulation, and BLM policy and guidance; in these cases no decisions are described in this alternative.

Both the Caliente and Hollister RMPs divided their decision areas into Management Areas (MAs). The Caliente RMP divided the Planning Area into three MAs: Coast, Valley, and South Sierra. The Hollister RMP divided the Planning Area into 16 MAs, two of which are incorporated into this plan: Central San Joaquin and Squaw Leap (now known as San Joaquin River Gorge). Decisions made for specific MAs are only brought forward and applied to those areas; as such each decision source is identified and, if applicable, the area to which it applies.

In some places the original text of the LUP level decision from the Caliente and Hollister RMPs has been updated and/or paraphrased to reflect current terminology and aid in understanding of the decision.

Each of the prior RMPs handled explanation of the area-wide, management area, and resource-specific goals and objectives differently. The Hollister RMP identified resource-specific goals and objectives that are presented with each resource, where appropriate. The Caliente RMP did not establish resource specific goals. The Caliente RMP area-wide and MA goals and objectives are presented below:

> Manage public lands to provide healthy, sustainable, biologically diverse ecosystems contributing goods, services and other social and cultural needs for local communities, the region and nation.
>
> Manage public lands to meet the following minimum Standards of [Rangeland] Health *(Caliente RMP as amended)*:
>
> - Soils exhibit functional biological and physical characteristics that are appropriate to soil type, climate, and land form.
> - Healthy, productive and diverse populations of native species, including special status species (Federal T&E, Federal proposed, BLM sensitive, or Calif. State T&E) are maintained or enhanced where appropriate.
> - Riparian/wetland vegetation, structure and diversity and stream channels and floodplains are functioning properly and achieving advanced ecological status.
> - Surface and groundwater quality complies with California or other appropriate water quality standards.

Coast MA: Increase management levels to enhance awareness of resource conditions and values in a landscape setting. Focus management on natural resource condition and health, particularly unique vegetative communities, riparian resources, landmark and coastal values.

Coast MA: Integrate management objectives with those of local county governments, coastal commission, state agencies and other federal agencies to contribute to regional conservation efforts.

Coast MA: Increase cooperation with management partners to integrate the isolated parcels with other natural resource and open space management programs.

Coast MA: Reposition properties that do not fit into an active Bureau or cooperator resource management program for lands in areas that do. Rely on county government land use controls to determine future use of those parcels transferred to private ownership.

Valley MA: Provide a leadership role in developing and implementing regional conservation strategies. Dedicate or reposition public lands to meet San Joaquin Valley conservation goals.

Valley MA: Integrate management objectives with and assist local county governments, private organizations, and state agencies in the development and implementation of local management plans (e.g. Habitat Conservation Plans, mitigation banks, county general plans, air and water quality plans).

Valley MA: Collaborate with the oil and gas and livestock industries in meeting mutually beneficial management objectives.

South Sierra MA: Assist in the maintenance of rural lifestyles and economies of local communities by providing for livestock grazing, community infrastructure needs and a range of dispersed recreational opportunities.

South Sierra MA: Maintain an increasingly active management presence to resolve private/public land use issues and respond to fire suppression needs that threaten private property.

South Sierra MA: Integrate management objectives with those of other Federal and State agencies and local and county governments.

South Sierra MA: Actively participate in regional conservation plans and proactively manage for the conservation of rare species and habitats, cultural resources, and Native American traditional values.

RESOURCES

2.1.1 BIOLOGICAL RESOURCES

Goals

Protect and/or improve habitat necessary to recover populations of sensitive, rare, threatened or endangered species (*Hollister RMP).*

Provide sufficient habitat for wildlife species and give emphasis to maintaining or improving certain key habitats (*Hollister RMP).*

Objectives

San Joaquin River Gorge MA: Protect/maintain habitat condition in the area *(Hollister RMP).*

Decisions

Unless otherwise closed elsewhere in this plan, threatened and endangered species range would be open to leasing of oil, gas, and geothermal resources with the Controlled Surface Use - Protected Species stipulation *(Caliente RMP).*

Unless otherwise closed elsewhere in this plan, known locations of federal candidate species, State threatened and endangered species, and Bureau Sensitive species habitat would be open to leasing of oil, gas, and geothermal resources with the Controlled Surface Use - Sensitive Species stipulation *(Caliente RMP).*

Critical condor habitat and lands near Hopper Mountain National Wildlife Refuge would be open to leasing of oil, gas, and geothermal resources with the Controlled Surface Use - Protected Species stipulation. Lands within the Blue Ridge Critical Condor Area would be closed to leasing of oil, gas, and geothermal resources *(Caliente RMP).*

Lands acquired through Compensation activities would be managed to benefit the species identified in the applicable U.S. Fish and Wildlife Service (USF&WS) or California Department of Fish and Game (CDF&G) biological opinion, agreement, or other document. Acquisition of lands with compensation funds will target areas approved by the USF&WS and CDF&G. Management of these areas would be to promote recovery of the target species. Special management terms and condition for these areas include *(Caliente RMP)*:

- These lands may only be repositioned or transferred to a party with concurrence from the USF&WS and CDF&G.
- ROW authorizations, land use permits, geophysical explorations, recreation permits and public uses and livestock grazing will be managed to be compatible with objectives for the area.
- These lands would be proposed for withdrawal from entry under the mining laws if surface lands are acquired over federal mineral estate.

- The area would be open to leasing of oil, gas, and geothermal resources with the Controlled Surface Use - Protected Species stipulation.

Essential and critical condor habitat would only be repositioned with concurrence from the USF&WS *(Caliente RMP)*.

Woodcutting permits will be considered on a case-by-case basis. Commercial woodcutting may be considered to meet special management needs (*Hollister RMP)*.

Coast MA: Approximately 3,979 acres federal surface and subsurface and 4,435 acres subsurface in five areas would be identified for Special Management Area designation. *(Caliente RMP)*.

Frog Pond Mountain (53 acres surface and subsurface) would be managed for the protection of riparian resources and the California Bay Forest.

- Open for the leasing of oil, gas and geothermal resources subject to CSU-[Priority Species, Plant Community and Habitats] stipulation.
- Proposed for withdrawal from entry under the mining laws.
- Unavailable for livestock grazing.
- Travel in the riparian zone is limited to pedestrians.
- Terminate the Public Water Reserve and manage water resources for the benefit of the riparian system.
- Collection of vegetative materials within the SMA requires authorization.

Irish Hills (1,104 acres surface and subsurface and 560 acres subsurface only) would be managed to protect diverse and coastal plant communities.

- Open for the leasing of oil, gas and geothermal resources subject to CSU -[Priority Species, Plant Communities and Habitats] stipulation.
- Unavailable for livestock grazing.

Rusty Peak (797 acres surface and subsurface and 635 acres subsurface only) would be managed to protect serpentine chaparral, coastal live oak woodland, perennial grassland, and sensitive plant species.

- Open for the leasing of oil, gas and geothermal resources subject to CSU – [Priority Species, Plant Communities and Habitats] stipulation.
- Unavailable for livestock grazing.

Hopper Mountain (2,025 acres surface and subsurface and 3,240 acres subsurface only) would be managed to support the California Condor Recovery Program and to complement management of the adjacent Sespe Condor Sanctuary, Hopper Mountain National Wildlife Refuge and Sespe-Piru Critical Condor Habitat Area.

- Open to the leasing of oil, gas and geothermal resources subject to the CSU - Protected Species stipulation.
- Proposed for withdrawal from entry under the mining laws.
- Portions of the SMA are available for livestock grazing if grazing operations complement management objectives, and portions are unavailable for livestock grazing.

Valley MA: Public lands identified by the USF&WS and CDF&G as important for the recovery of Federally listed species would be managed as conserved lands. These areas would be managed in a manner consistent with the direction established by the USF&WS and CDF&G through the Kern Valley Floor HCP and any pertinent recovery plans, and would complement local conservation plans *(Caliente RMP)*.

Valley MA: Approximately 114,960 acres of federal surface and subsurface and 4,840 acres of subsurface would be identified as Special Management Areas *(Caliente RMP)*.

The existing Temblor Mountain and Caliente National Cooperative Land and Wildlife Management Areas (NCLWMA) would be continued with the adoption of the following objectives. Public land within the existing Temblor NCLWMA would be managed for improved wildlife habitat and recreation opportunities as well as soil stabilization. Public land within the existing Caliente NCLWMA would be managed for improved vegetative communities and recreational opportunities.

- Open for the leasing of oil, gas and geothermal resources subject to CSU - Protected Species stipulation.
- These lands are withdrawn from application under the non-mineral public land laws and from disposition under the homestead, desert land entry and script selection laws.
- Available for livestock grazing.

Public land within the Bitter Creek National Wildlife Refuge, encompassing 960 acres of Federal surface and subsurface and 4,840 acres of subsurface only, would be managed to serve as conserved lands. Management as a Special Management Area would provide the special attention required for management of the Bureau administered surface and subsurface to be compatible with the U.S. Fish and Wildlife Service's management of the surrounding Bitter Creek National Wildlife Refuge.

- Closed to the leasing of oil, gas and geothermal resources.
- Available for livestock grazing. Seasonal restrictions and limits on access may be required to prevent disturbance to condors.

South Sierra MA: Approximately 148,870 acres in eight areas would be identified for Special Management Area designation.

Erskine Creek (2,960 acres surface and subsurface and 480 acres subsurface only) would be managed to protect limestone caves, riparian areas, and sensitive vegetation.

- Closed to the leasing of oil, gas and geothermal resources. About half of the southwestern portion of the SMA is within the Piute Cypress Wilderness Study Area (WSA) where no new oil, gas, and geothermal leases may be issued.
- N1/2 Sec. 22 and SE1/4SW1/4 Sec. 15, T. 27 S., R. 33 E., MDB&M, shall be proposed for withdrawal from entry under the mining laws.
- A portion of the SMA is available for livestock grazing if riparian resource concerns can be met. A portion of the SMA is unavailable for livestock grazing.

The North Fork of the Kaweah (4,870 acres surface and subsurface) would be managed for riparian resources, cultural resources, and sensitive vegetation, while improving recreational opportunities.

- Available for livestock grazing.
- Portions of the area may be managed as day use. Maximum lengths for stays for visitors may be shortened to accommodate more visitors and reduce visitor conflicts.

The Monache-Walker Pass National Cooperative Land and Wildlife Management Area (140,000 acres) would be managed to improve and maintain a diverse assemblage of vegetative communities to benefit wildlife resources and recreational opportunities.

- These lands are withdrawn from application under the non-mineral public land laws and from disposition under the homestead, desert land entry and script selection laws.
- Available for livestock grazing.

Deer Spring (320 acres surface and subsurface) would be managed to protect riparian resources, cultural resources, and to improve wildlife habitat.

- Closed to the leasing of oil, gas and geothermal resources
- Available for livestock grazing. The spring exclosure is unavailable for livestock grazing.

San Joaquin River Gorge MA: Continue wildlife habitat management in accordance with the Squaw Leap Habitat Management Plan. Emphasis will be on project maintenance and evaluation (including mitigation projects associated with the Habitat Plan for the Kerckhoff 2 Project) (*Hollister RMP).*

2.1.2 CULTURAL RESOURCES

Objectives

Ensure that cultural resources of high scientific, interpretive, or socio-cultural significance are not destroyed by other land uses *(Hollister RMP).*

Central San Joaquin MA: Protect significant cultural resources that exist in the area *(Hollister RMP)*.

Decisions

Coast MA: Approximately 1,005 acres federal surface and subsurface would be identified for Special Management Area designation. *(Caliente RMP)*.

Huasna Peak (1,005 acres surface and subsurface) would be managed for the protection of Native American traditional [cultural practices].

- Open for the leasing of oil, gas and geothermal resources subject to NSO stipulation.
- Unavailable for livestock grazing.

South Sierra MA: Approximately 7,335 acres in three areas would be identified for Special Management Area designation.

Keyesville (7,133 acres surface and subsurface and 220 acres subsurface only) would be managed for the enhancement of compatible low impact recreational opportunities and natural resources.

- Disposals of mineral materials may be authorized outside of or away from riparian zones, sensitive plants, and cultural resources.
- Shooting of firearms, except for the legal taking of game, is prohibited.
- Open for the leasing of oil, gas and geothermal resources subject to CSU - Sensitive Species stipulation.
- Continued closure to the mining laws in the Keyesville area (Sec. 25 SE¼, and Sec. 36 N½NE¼, SE¼, T. 26 S., R. 32 E., MDB&M). Expand closure to include Sec. 25 S½SW¼, Sec 35 NE¼NE¼, and Sec 36 S½NE¼, N½NW¼.
- Portions limited to day-use only.
- Routes of travel for OHVs and bicycles shall be designated in the Keyesville SMA.
- Available for livestock grazing.
- Recreational mining may be allowed within areas near Keyesville that are withdrawn from the general mining laws, subject to permit.

The [South Lake Cultural Area] (160 acres federal surface and subsurface) would be managed for the protection of its cultural resources values and characteristics which qualified the property for listing on the National Register of Historic Places.

- Open for the leasing of oil, gas and geothermal resources subject to NSO stipulation.
- Unavailable for livestock grazing.

The Granite Cave cultural site (5 acres federal surface and subsurface) would be managed for the protection of its cultural resource and Native American traditional [cultural practices], and the cave's microclimate and natural environs.

- Open for the leasing of oil, gas and geothermal resources subject to NSO stipulation.

The Walker Pass National Historic Landmark (approximately 37 acres Federal surface and subsurface) would be managed for the protection of its historic property, natural landscape, and viewshed values.

- Open for the leasing of oil, gas and geothermal resources subject to NSO stipulation.
- Available for livestock grazing.

2.1.3 SOIL RESOURCES

Objectives

Manage public lands to meet the minimum Standards of Rangeland Health such that soils exhibit functional biological and physical characteristics that are appropriate to soil type, climate, and land form *(RMPs as amended by the Rangeland Health Standards and Guidelines for California and Northwestern Nevada Final EIS).*

2.1.4 VISUAL RESOURCES

Objectives

Maintain and/or enhance the scenic quality of the public lands *(Hollister RMP).*

Decisions

Visual Resource Management (VRM) Class 4 standards will apply to all MAs unless otherwise stated *(Hollister RMP).*

San Joaquin River Gorge MA: All actions must conform to VRM Class 3 standards for the area *(Hollister RMP).*

2.1.5 WATER RESOURCES

Objectives

Manage public lands to meet the minimum Standards of Rangeland Health such that: (i) surface and ground water quality complies with objectives of the Clean Water Act and other applicable water quality requirements, including the California State standards and (ii) riparian/wetland vegetation structure and diversity, stream channels and floodplains are functioning properly and meeting regional and local management objectives *(RMPs as amended by the Rangeland Health Standards and Guidelines for California and Northwestern Nevada Final EIS).*

2.1.6 WILDLAND FIRE ECOLOGY AND MANAGEMENT

Goals

Establish guidelines for fire management in order to meet resource objectives (*Hollister RMP*).

Establish a fire management program which is cost-efficient and commensurate with threats to life, property, public safety, and resources (*Hollister RMP*).

Decisions

Prescribed burning may increase livestock forage (base AUMs) within one to three years depending on success of the burn. Livestock use will be dependent upon yearly monitoring and residual mulch requirements and upon available forage each year after burning. Increases in livestock use will not be granted in areas where burning for wildlife habitat improvement is the primary objective (*Hollister RMP*).

Prescribed burning during the spring (April through June) will be kept to a minimum (*Hollister RMP*).

Brush crushing "high-blading" and/or fire line construction (mechanical pre-burn site preparations) will be performed when soil and fuel moisture levels are low enough to prevent undue surface (soil) disturbance and to maximize pretreatment objectives (*Hollister RMP*).

San Joaquin River Gorge MA: Allow prescribed burning on a case-by-case basis for improvement of livestock forage and fuels reduction in accordance with the Fresno/Monterey County Burn Plan *(Hollister RMP).*

San Joaquin River Gorge MA: Develop a fire management Plan with emphasis on Fire prevention and action modification in cooperation with the State Department of Forestry *(Hollister RMP)*

RESOURCE USES

2.1.7 COMPREHENSIVE TRAIL AND TRAVEL MANAGEMENT

Decisions

The areas which are closed to all vehicular travel include wilderness (even if an old pathway appears passable), Point Sal, Blue Ridge, and The Pacific Crest National Scenic Trail (PCNST) *(Caliente RMP).*

Except for areas closed to all vehicles, the use of mountain bicycles is allowed on all roads and trails available to pedestrians. Bicycles are not allowed to travel off road *(Caliente RMP).*

Except as otherwise noted, travel is allowed on existing roads and trails which appear on BLM Surface Management maps, aerial photographs, and USGS topographical maps at the time this plan is approved. Routes are considered to be open unless indicated as closed on the ground by signs, barricades, or other physical considerations which appropriately direct the user. All authorized public land users that hold a special authorization (i.e. grazing permittees, rights-of-way holders, mining claimants, etc) may drive off road if their authorization allows. Emergency services and/or law enforcement activities are exceptions to these policies. Administrative access may be granted by the authorized officer to individuals requiring such access for official business *(Caliente RMP).*

Central San Joaquin MA: Vehicle Use is limited to designated routes *(Hollister RMP).*

San Joaquin River Gorge MA: Vehicle Use is limited to designated routes (vehicle use on Madera county side further restricted to administrative use and special project maintenance) *(Hollister RMP)*.

2.1.8 LANDS AND REALTY

Land Tenure

Objectives

Coast MA: Reposition properties that do not fit into an active Bureau or cooperator resource management program for lands in areas that do. Rely on county government land use controls to determine future use of those parcels transferred to private ownership *(Caliente RMP)*.

Central San Joaquin MA: Provide for increased management efficiency through land tenure adjustments to meet various management needs in the area *(Hollister RMP)*.

Decisions

All mineral estate lands (split estate lands) under BLM jurisdiction would be considered potentially suitable for disposal through exchange under Section 206 of FLPMA or sale under Section 209 of FLPMA. Any such disposal shall require a site-specific evaluation under the applicable regulations, prior to any final decision on such action *(Caliente RMP)*.

Coast MA: All BLM lands would be identified as suitable for either new managers or repositioning [disposal] *(Caliente RMP)*.

Valley MA: Approximately 80,000 acres (250 parcels) would be identified for local repositioning through land exchanges to consolidate natural resource values *(Caliente RMP)*.

Valley MA: Approximately 7,000 acres would be identified as suitable for new managers where lands would be transferred to other [federal] parties *(Caliente RMP)*.

South Sierra MA: Approximately 113,500 acres (160 parcels) would be identified for local repositioning through land exchanges to consolidate natural resource values *(Caliente RMP)*

Naval Petroleum Reserve 2: A limited number of parcels near the communities of Taft and Ford City will be considered for potential disposal. These parcels aggregate approximately 161 acres. Oil and gas rights will be retained on the above parcels, but without the right of surface entry *(NPR2 Amendment)*.

Central San Joaquin MA: Dispose of lands identified for sale (1,917 acres) *(Hollister RMP)*.

Utility Corridors and Communication Sites

Decisions

All existing or occupied utility corridors delineated in the Western Regional Corridor Study of 1986 are designated as utility corridors. These right-of-way corridors are one mile wide and follow existing routes. Uses of these corridors include routes for: larger electric transmission facilities,

major pipelines, communication sites and associated pathways, and communication lines for interstate use *(Caliente RMP)*.

Withdrawals

Decisions

Due to low productivity and/or conflicts with endangered species habitat, all BLM lands within the [Decision Area] are considered unsuitable for entry under the Desert Land Entry Act of March 3, 1877 (43 USC 321) and Indian Allotment Act of February 8, 1887 (25 USC 334) *(Caliente RMP)*.

Coast MA: Approximately 5,800 acres in five areas are [recommended for proposal] for withdrawal from entry under the mining law. These areas would include the Pt. Sal, Tierra Redonda, and Salinas River (riparian portions) ACECs and the Frog Pond and Hopper Mountain SMAs *(Caliente RMP)*.

Valley MA: Approximately 7,900 acres are [recommended for proposal] for withdrawal from entry under the mining law in four areas. These areas would include the Alkali Sink, Carrizo Plain Natural Area (Soda Lake only), Chico Martinez and Goose Lake ACECs *(Caliente RMP)*.

South Sierra MA: Approximately 6,300 acres are [recommended for proposal] for withdrawal from entry under the mining law in four areas. These areas would include portions of the Blue Ridge and Case Mountain ACECs and Erskine Creek and Keyesville SMAs *(Caliente RMP)*.

2.1.9 LIVESTOCK GRAZING

Objectives

Manage public lands to meet the minimum Standards of Rangeland Health (RMPs as amended by the Rangeland Health Standards and Guidelines for California and Northwestern Nevada Final EIS).

Provide a sustained yield for forage to meet demand while maintaining the productivity of the land *(Hollister RMP)*.

Increase forage productivity on lands producing below their potential through improved management and cost efficient development *(Hollister RMP)*.

Decisions

Coast MA: Approximately 6,100 of the 20,400 acres of the public land would be available for livestock grazing. The remainder of the MA, approximately 14,300 acres, would be classified as unavailable for livestock grazing *(Caliente RMP)*.

Coast MA: Livestock grazing would continue to be authorized on about 4,000 acres of public land in seven allotments at levels [and under guidelines, Appendix F-2] described in the RMP [an area wide total of 491 Animal Unit Months (AUMs)] *(Caliente RMP)*.

Valley MA: Approximately 275,000 acres of the public land would be available for livestock grazing [a large portion of which occurs within the CPNM]. The remainder of the public lands in the MA, approximately 18,000 acres, would be classified as unavailable for livestock grazing *(Caliente RMP)*.

Valley MA: Livestock grazing would continue to be authorized on 270,200 acres of public land in 54 allotments at levels [and under guidelines, Appendix F-2] described in the RMP [an area wide total of 40,323 AUMs, including the CPNM] *(Caliente RMP)*.

South Sierra MA: Approximately 220,800 acres of the public land would be available for livestock grazing. The remainder of the MA, approximately 55,200 acres, would be classified as unavailable for livestock grazing *(Caliente RMP)*.

South Sierra MA: Livestock grazing would continue to be authorized on 188,400 acres of public land in 53 allotments at levels [and under guidelines, Appendix F-2] described in the RMP [an area wide total of 13,652 AUMs] *(Caliente RMP)*.

Central San Joaquin MA: Manage 5 allotments (total 1,109 acres and 122 AUMs) on a custodial basis *(Hollister RMP)*.

San Joaquin River Gorge MA: Manage 4 allotments (total 4,160 acres and 985 AUMs) intensively under existing management agreements with emphasis on protection of wildlife and recreation values *(Hollister RMP)*.

2.1.10 MINERALS MANAGEMENT

Leasable Minerals

Goals

Central San Joaquin MA: Oil, gas, and mineral resources will be managed to meet the demand for increased energy and mineral production while protecting other resource values *(Hollister RMP)*.

Objectives

Valley MA: Collaborate with the oil and gas and livestock industries in meeting mutually beneficial management objectives *(Caliente RMP)*.

Decisions

Coast MA: Public acreage that is currently leased will not be subject to additional stipulations; however, if leases expire, and new leasing occurs [or renewal leases are renewed], special stipulations may be applied *(Caliente RMP)*.

Coast MA: Approximately 42,800 acres are proposed to be open to oil and gas leasing under standard terms and conditions; of that total 2,800 acres are currently leased *(Caliente RMP)*.

Coast MA: Approximately 22,700 acres are proposed to be open to oil and gas leasing subject to a Controlled Surface Use (CSU) stipulation *(Caliente RMP)*. Special categories of the CSU stipulations include:

- 16,500 acres open subject to the CSU - Protected Species stipulation.
- 6,000 acres open subject to the CSU - Sensitive Species stipulation.

- 4,300 acres open subject to the CSU - [Priority Species, Plant Communities and Habitats] stipulation.

Coast MA: Both the CSU-Protected Species and the CSU-Sensitive Species stipulations would apply to one township and range (25S, 10E) immediately southwest of Camp Roberts in an area with limited oil exploration potential *(Caliente RMP)*

Coast MA: The 69,700 acres of mineral estate under the administration of the Department of Defense (DOD) would be open subject to the CSU- Defense stipulation *(Caliente RMP)*.

Coast MA: Approximately 1,500 acres are proposed to open with a No Surface Occupancy stipulation *(Caliente RMP)*.

Coast MA: Approximately 100 acres are proposed to be closed to leasing *(Caliente RMP)*.

Coast MA: Approximately 1,900 acres are proposed to be closed to leasing within designated Wilderness *(Caliente RMP)*.

Valley MA: Public acreage that is currently leased will not be subject to additional stipulations; however, if leases expire, and new leasing occurs, special stipulations may be applied *(Caliente RMP)*.

Valley MA: Approximately 5,800 BLM acres at Bitter Creek SMA would be closed to oil and gas leasing *(Caliente RMP)*.

Valley MA: Approximately 500 BLM acres in Goose Lake and Alkali Sink ACEC would be open to oil and gas leasing with a No Surface Occupancy Stipulation (NSO). Approximately 300 acres are currently leased *(Caliente RMP)*.

Valley MA: Approximately 18,000 acres would be open to oil and gas leasing under standard terms and conditions *(Caliente RMP)*.

Valley MA: Approximately 348,300 acres would be open to oil and gas leasing with a Controlled Surface Use (CSU) stipulation; of that total, approximately 136,000 acres are currently under lease *(Caliente RMP)*. Special categories of the CSU stipulations include:

- 212,300 acres would be subject to the CSU- Protected Species stipulation.
- 300 acres would be subject to the CSU- Critical Habitat stipulation.
- 126,500 acres would be subject to the CSU- Sensitive Species stipulation.
- 113,100 acres would be subject to the CSU- Raptor stipulation.

Valley MA: Areas within the Valley [MA] that would be subject to more than one category of the CSU stipulations include: the Carrizo Plain Natural Area ACEC where protected species, sensitive species and raptor stipulations apply; Lokern ACEC, where both protected species and sensitive species stipulations apply; and Kettleman Hills where protected species and raptor stipulations apply *(Caliente RMP)*.

Valley MA: The 16,600 acres of Federal mineral estate under the administration of the Department of Defense (DOD at Lemoore Naval Air Station) would be open to oil and gas leasing subject to the CSU - Defense stipulation *(Caliente RMP)*.

South Sierra MA: Approximately 10,100 BLM acres would be closed to oil and gas leasing, and an additional 18,500 acres would be closed to geothermal development *(Caliente RMP)*.

South Sierra MA: Approximately 3,000 acres would be open to oil and gas leasing with a No Surface Occupancy (NSO) Stipulation *(Caliente RMP)*.

South Sierra MA: Approximately 234,700 BLM acres would be open to oil and gas leasing under standard terms and conditions *(Caliente RMP)*.

South Sierra MA: Approximately 95,600 acres would be open to oil and gas leasing under a Controlled Surface Use (CSU) stipulation *(Caliente RMP)*. Special categories of the CSU stipulation will be applied as follows:

- 34,400 acres are subject to the CSU- Protected Species stipulation
- 22,300 acres are subject to the CSU- Critical Habitat stipulation
- 27,400 acres are subject to the CSU- Sensitive Species stipulation
- 18,500 acres are subject to the CSU- Raptor stipulation

Locatable Minerals

Decisions

Coast MA: Approximately 1,900 acres are in existing withdrawals from entry under the general mining laws within Wilderness Areas. Approximately 5,800 acres, in five areas are [recommended for proposal] for withdrawal from entry under the mining law. These areas would include the Pt. Sal, Tierra Redonda, and Salinas River (10 acres within riparian portions) ACECs and the Frog Pond and Hopper Mountain SMAs *(Caliente RMP)*.

Valley MA: Approximately 7,900 acres are [recommended for proposal] for withdrawal from entry under the mining law in four areas. These areas would include the Alkali Sink, Carrizo Plain Natural Area (Soda Lake only), Chico Martinez and Goose Lake ACECs *(Caliente RMP)*.

South Sierra MA: Existing land use allocations for Wilderness Areas have closed 109,000 acres to entry under the general mining law of 1872. Approximately 6,300 acres are [recommended for proposal] for withdrawal from entry under the mining law in four areas; these areas would include portions of the Blue Ridge and Case Mountain ACECs and Erskine Creek and Keyesville SMAs *(Caliente RMP)*.

Salable Minerals

Decisions

Coast MA: The remaining 63,100 acres within the Coast [MA] would remain open to solid and mineral material exploration. Management objectives and guidelines would be utilized to evaluate applications for development of the solid mineral and mineral material resources *(Caliente RMP)*.

Valley MA: The remaining 389,400 acres within the Valley [MA] would remain open to solid mineral and mineral material exploration and development under existing laws and regulations. Management objectives and guidelines would be utilized to evaluate applications for development of the solid mineral and mineral material resources *(Caliente RMP)*.

South Sierra MA: The remaining 356,700 acres within the South Sierra [MA] would remain open to exploration and development under existing laws and regulations. Management objectives and guidelines would be utilized to evaluate applications for development of the solid mineral and mineral material resources *(Caliente RMP)*.

2.1.11 RECREATION AND VISITOR SERVICES

Objectives

Central San Joaquin MA: Provide/maintain recreation opportunities in the area while protecting other resources, and minimizing conflicts with other users and adjacent landowners *(Hollister RMP)*.

San Joaquin River Gorge MA: Provide/maintain recreational opportunities in the area while protecting other resources and minimizing conflicts with other users and adjacent landowners *(Hollister RMP)*.

Decisions

Camping up to 14 days per person within any 30-day period and up to 28 days in a one-year period is allowed in any location not specifically closed to camping. Dispersed camping is not permitted within 100 feet of any freshwater source *(Caliente RMP)*.

Personal property left unattended on public land for more than 72 hours would be treated as abandoned *(Caliente RMP)*.

Shooting is not allowed within ¼ mile of developed recreational sites, visitor facilities, livestock water improvements, guzzlers, the Poso Creek area (E½NE¼, Sec. 32, T. 27 S., R. 27 E., MDB&M) and all authorized facilities belonging to lessees or permittees of the Federal government, as well as buildings and residences on adjacent private lands. These areas are still available for the lawful taking of game. The restrictions do not apply to federal, state, and local law enforcement officers who are engaged in their official duties *(Caliente RMP)*.

Central San Joaquin MA: Manage recreation use on a custodial basis *(Hollister RMP)*.

San Joaquin River Gorge MA: Continue to manage the area as an SRMA; to provide hunting, hiking, horseback riding, camping, fishing and picnicking opportunities *(Hollister RMP)*.

SPECIAL DESIGNATIONS

2.1.12 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Decisions

Coast MA: Approximately 2,487 acres of Federal surface and subsurface and 915 acres of subsurface, in 5 areas would be identified for Area of Critical Environmental Concern designation *(Caliente RMP)*.

The existing Pt. Sal ACEC, encompassing 77 acres surface and subsurface, would also retain its ACEC designation and would be managed to provide protection to unique visual, cultural, geologic, and wildlife resources, as well as, rare, threatened, and endangered plant and animal species.

- Closed to oil, gas, and geothermal leasing.
- Manage as a Day Use Area
- All public lands within the ACEC are [recommended for proposal] for withdrawal from the mining laws.
- Unavailable for livestock grazing.
- Designated as closed to OHV use.
- Access is limited to pedestrian travel on designated trails within the ACEC.

Cypress Mountain ACEC (1,090 acres surface and subsurface) would be managed to protect the rare and unique plant communities of serpentine chaparral and Northern Interior Cypress Forest, which is dominated by Sargent cypress.

- Open for leasing of oil, gas, and geothermal resources subject to CSU - Priority Species, Plant Communities and Habitats] stipulation.
- Unavailable for livestock grazing.

Salinas River ACEC (946 acres surface and subsurface and 658 acres subsurface only) would be managed to protect diverse vegetative communities and the exemplary riparian area.

- Manage the riparian zone as a Day Use area.
- Horse travel is limited to designated routes in the riparian zone.
- Withdraw riparian zone (c. 10 acres) from mining laws.
- Unavailable for livestock grazing.

Tierra Redonda ACEC (331 acres surface and subsurface and 81 acres subsurface only) would be managed to protect the paleontological resources, the unique sand dune formation, coast live oak woodland, and scenic and geologic values.

- Open to leasing of oil, gas, and geothermal resources subject to NSO stipulation.
- [Recommend for proposal] for withdrawal from entry under the mining law.

- Unavailable for livestock grazing.
- Sand dunes are limited to pedestrian access only.

Valley MA: Approximately 156,800 acres of federal surface and subsurface, 55,700 acres of surface only and 19,300 acres of subsurface in six areas would be identified for Areas of Critical Environmental Concern designation *(Caliente RMP)*.

Lokern ACEC (3,002 acres surface and subsurface and 3,630 acres subsurface only) would be managed for the protection of listed plant and animal species and oil and gas production.

- Open for leasing of oil, gas, and geothermal resources subject to the following stipulations: CSU - Protected Species, CSU - Sensitive Species.
- If a suitable mineral materials site cannot be found outside of the ACEC, sales of mineral materials may be authorized at the site of the old Elk Hill[s] Community pit.
- Unavailable for livestock grazing, unless research shows grazing is necessary to meet management objectives.

Alkali Sink ACEC (402 acres surface and subsurface) would be managed to protect the rare alkali sink plant community and habitat for state and federally listed plants and animals.

- Open for the leasing of oil, gas, and geothermal resources subject to NSO stipulation.
- [Recommend for proposal] for withdrawal from entry under the mining laws.
- Manage as a Day Use area
- Access off designated routes of travel is restricted to pedestrian travel.
- Water diversions are prohibited.
- Collection of vegetative materials within the ACEC requires authorization.
- Unavailable for livestock grazing.

Goose Lake ACEC (40 acres Federal surface and subsurface) is an existing ACEC, and it would be continue to be managed for the protection of the rare alkali sink vegetation, habitat for numerous shorebirds and raptors, and cultural resource values.

- Open for leasing of oil, gas, and geothermal resources subject to NSO stipulation.
- [Recommend for proposal] for withdrawal from entry under mining laws.
- Manage as a Day Use area
- Access off designated routes of travel is limited to pedestrian travel.
- Collection of vegetative materials within the ACEC requires authorization.
- Unavailable for livestock grazing.

Kettleman Hills ACEC (6,727 acres Federal surface and subsurface and 3,067 acres subsurface only) would be managed to protect significant paleontological values and wildlife habitat for federally listed species and oil and gas production.

- Open for the leasing of oil, gas, and geothermal resources subject to the following stipulations: CSU - Protected Species and CSU – Raptors stipulation.
- Available for livestock grazing and is currently allotted and grazing will continue to be authorized.

Carrizo Plain Natural Area ACEC, encompassing [the remaining 122 acres not addressed by the Carrizo Plain National Monument RMP (BLM 2010)] would be managed for the protection of sensitive plant, animal, cultural, Native American traditional [cultural practices], and geologic resource values.

- Open for the leasing of oil, gas, and geothermal resources subject to the following special stipulations: CSU - Protected Species, CSU - Sensitive Species and CSU - Raptors.
- Implement the Carrizo Plain Natural Area Management Plan.
- Camping is restricted to designated locations.
- Portions are available for livestock grazing and portions are unavailable.

Chico Martinez ACEC (3,234 acres surface and subsurface and 1,373 acres subsurface only) encompasses and replaces the existing Reef Ridge ACEC. It would be managed to protect significant paleontological resources, as well as geologic type formations.

- Open for the leasing of oil, gas, and geothermal resources subject to the CSU - Protected Species stipulation.
- Access off designated routes of travel is limited to pedestrian and equestrian travel.
- Available for livestock grazing.

Southern Sierra MA: Approximately 24,120 Acres in 4 areas would be identified for Area of Critical Environmental Concern designation *(Caliente RMP)*.

The existing Piute Cypress ACEC, encompassing 930 acres surface and subsurface and 174 acres subsurface only, would retain its designation and be slightly expanded. It would be managed to protect the Piute Cypress grove and other associated sensitive plant species.

- Closed to oil, gas, and geothermal leasing.
- Available for livestock grazing.
- Collection of vegetative materials within the ACEC requires authorization.
- Access off designated routes of travel is restricted to pedestrian travel.
- Manage as a Day Use area.

The existing Blue Ridge ACEC, encompassing 3,177 acres surface and subsurface and 1,581 acres subsurface only, would also retain its ACEC designation and would be managed for the protection of designated critical condor habitat.

- Closed to oil, gas and geothermal leasing.
- The area is [recommended for proposal] for withdrawal from entry under the mining laws.
- Unavailable for livestock use unless grazing is deemed necessary by the USFWS to assist in condor recovery.
- Designated as closed to OHV's.
- Public access may be restricted during condor use periods.

Case Mountain ACEC (26,468 acres) would be managed to protect the giant sequoia groves, sensitive plant/animal species, cultural resources, and riparian values.

- Open for the leasing of oil and gas resources subject to the CSU - Raptor stipulation.
- Closed to the leasing of geothermal resources.
- Lands within sequoia groves, approximately 250 acres, shall be withdrawn from the mining laws.
- The two access routes, Salt Creek Road and Oak Grove Road off Mineral King, are open to mountain biking but closed to other public vehicular travel until a management plan is written for the area. Off road public access is limited to pedestrians and equestrians only. Travel within the sequoia groves is limited to pedestrians.
- Available for livestock grazing. Grazing operations shall be adjusted or terminated within the sequoia community if studies show they have a negative effect upon the plant community.

Horse Canyon ACEC (1,530 acres federal surface and subsurface and 1,330 acres subsurface only) would be managed to enhance protection of significant cultural resource and paleontological resource values, and Native American traditional [cultural practices].

- Open for leasing of oil, gas, and geothermal resources subject to NSO stipulation.
- Unavailable for livestock grazing.

2.1.13 BACK COUNTRY BYWAYS

Decisions

South Sierra MA: The Canebrake/Long Valley Loop Road would be managed as a Scenic Back Country Byway *(Caliente RMP)*.

2.1.14 NATIONAL TRAILS

Decisions

South Sierra MA: The Pacific Crest [National Scenic] Trail (116 miles) would be identified for Special Management Area designation *(Caliente RMP)*.

- Continue closure of trail to vehicles, including bicycles.
- Manage the Lamont Peak spur trail to the PCNST as a hiking and equestrian trail, keeping it closed to motorized and mechanized vehicles.
- Spur trails will be established where possible and an equestrian trailhead will be pursued near Tehachapi.

2.2 MANAGEMENT COMMON TO ALL ACTION ALTERNATIVES

The following sections describe management common to all action alternatives (B-E), presented by program area. Where program management varies across alternatives, only management common to each alternative is presented. Total management decisions for each program are inclusive of the decisions in both this section and the separate alternatives section.

Management actions common to all alternatives can result because of specific limitations on management of resources and land use programs that guided the development of the management alternatives. These limitations are defined in various laws and regulations that govern BLM management decisions. They are also set forth in the planning criteria to ensure that management actions under all alternatives comply with nondiscretionary laws and regulations. In many cases, these laws and regulations preclude the development of alternatives to a given action; in some cases, they limit management either to implementing or not implementing the action. Where there is no variation in management across alternatives within a program, decisions for that program are only presented in this section. These include; Air and Atmospheric Values, Cultural Resources, Paleontological Resources, Soil Resources, Water Resources, Wildland Fire and Ecology Management.

The goals presented in this section are resource-specific, generally area-wide, and do not vary by alternative. The objectives state more specifically measurable targets to achieve goals; these are generally consistent among the alternatives.

In addition to the LUP level decisions presented throughout the action alternatives, key implementation level decisions are also described under a separate heading in each resource, as applicable. These implementation decisions are specifically analyzed in the RMP to allow implementation with the signing of the ROD. Although these decisions are presented in the RMP they cannot be protested in the same fashion as LUP level decisions; instead the implementation level decisions must be appealed against in accordance with Department of Interior appeal regulations (43 CFR Part 4). Beyond these key implementation level decisions, other non-LUP level decisions that aid in understanding of resource management are presented throughout the appendices; these decisions are not analyzed and may require additional environmental analysis and documentation prior to implementation.

RESOURCES

2.2.1 AIR AND ATMOSPHERIC VALUES

Goal

Contribute to the achievement of good air quality.

Objectives

Contribute to the attainment of National Ambient Air Quality Standards (NAAQS).

Reduce emissions and the particulate level impacts from BLM management activities and BLM authorized actions in accordance with State Implementation Plans (SIPs).

Decisions

Design BLM program and management activities and authorize projects to meet air quality standards in conformance with State Implementation Plans. Reduce emissions resulting from such actions by implementing BMPs (Appendix L) and other control measures.

Prevent BLM actions from degrading Federal Class I areas including Domelands Wilderness, San Raphael Wilderness, and Sequoia and Kings Canyon National Parks.

2.2.2 BIOLOGICAL RESOURCES

Goals

Contribute to maintaining the biotic diversity within the Planning Area. Ensure public lands provide for a diversity of native species, ecosystems, and ecosystem processes.

Woodland and forest ecosystems are healthy, being resistant to and resilient from stand-replacing fire and/or catastrophic insect/disease infestations.

Promote the recovery of state and federally listed species. Promote conservation of other plant and animal species to prevent future listings.

Promote the success of recovery plans, conservation plans, wildlife management plans, vegetation and weed management plans, and other regional conservation strategies.

Objectives

Maintain or improve the quality and diversity of biological resources through the maintenance, enhancement, and restoration of habitats. Manage public lands to meet or exceed the Standards of Rangeland Health (see Appendix F-1).

Meet or exceed proper functioning condition of wetland or riparian habitats, maintain the hydrologic regime of vernal pools, and provide for riparian-dependent native species through habitat maintenance, restoration and enhancement.

Promote active vegetative management and treatments on our forested landscapes to manage toward healthy woodland ecosystems.

Restore, as appropriate, native plants and animals whose populations have been depleted or extirpated from the local area.

Conserve and recover state and federally listed species through the maintenance, enhancement and restoration of their habitats.

Minimize impacts on biological resources and the effectiveness of regional conservation strategies, including essential habitat linkages, from BLM actions and authorizations.

Reduce the impact that the urban interface, recreation activities, and other public uses have on listed species recovery, natural community and species conservation by coordination and collaboration with other agencies, local communities, and user groups.

Protect additional ecologically important areas, important linkages, and scarce limited habitats through land tenure adjustments and partnerships with other agencies and organizations.

Retain in public ownership lands that are important for species recovery or conservation, that contain ecologically important areas or scarce limited habitats, or contribute to regional conservation strategies.

Manage lands, interest in lands or funds acquired through compensation to benefit the species identified in the applicable USFWS or CDFG biological opinion, agreement, or other document, or to promote recovery of the target species

Control, decrease, or eradicate known populations of invasive nonnative plants and prevent new populations from becoming established. Control the spread of noxious weeds as identified by the California Department of Food and Agriculture and the California Invasive Plants Council (CALIPC, 2009).

Address at a landscape level, widespread nonnative species that displace and compete with the native flora through collaboration with weed management area members, state agencies, federal agencies, conservation organizations, and other interested parties.

Reduce the impacts, including disease transmissions, harassment, and competition, and limit the spread of nonnative animals.

Decisions

Complete land tenure adjustments (disposal) of designated critical habitat and essential habitat only with concurrence from USFWS.

Require land tenure adjustments (repositioning) of compensation lands to have concurrence from both USFWS and CDFG.

Manage lands acquired specifically for the protection of biological resources in a manner consistent with the terms of acquisition.

Allow transplants, augmentation, and reestablishment of native species populations that have been approved by CDFG or USFWS.

Control and eliminate, when necessary and possible, nonnative animals, such as bullfrogs, feral cats, wild pigs, and wild honeybees that have negative impacts on habitats or native species.

Eliminate, relocate, or redesign uses, after site specific NEPA analysis, that may result or have resulted in unacceptable impacts on important biological resources, through actions such as, making

seasonal closures, modifying grazing prescriptions, installing bat compatible closures, restricting equestrian access, relocating camping areas, and closing or realigning travel routes.

Apply SOPs, as appropriate to new BLM actions and authorizations (see Appendix L).

Implement a variety of measures (such as controlling weeds, seeding native species, performing prescribed burns, improving water availability, prescribed grazing, reducing raven nesting structures and the installing artificial dens or structures) to enhance or restore habitat conditions.

Implement actions and recommendations from recovery plans, including those to reduce mortality, provide information and education, and restore habitat to maintain, enhance and restore listed species habitats.

Seek and accept acquisition of biologically important lands and interest in lands, including compensation lands.

Propose all existing and future parcels of compensation land (including lands not specifically labeled as "compensation" within the parcel) for inclusion in the Compensation Lands ACEC (see *ACEC* Section of this chapter).

Prevent the issuance of an opening order to locatable mineral exploration and development in compensation lands where both surface and mineral estate are acquired.

Implement a variety of measures (such as fencing, planting native riparian vegetation to stabilize channels, installing in-stream structures, removing or redesigning spring alterations, removing weeds and seeding or planting appropriate native species) to restore degraded riparian areas and protect healthy riparian areas.

Manage naturally occurring waters on public lands, including public water reserves, to maintain, improve, or benefit hydrologic processes, such as in-stream flow requirements, needed for riparian systems.

Implement a variety of measures (such as removal, restriction, exclusion and education) if pets from public land users or private lands are causing wildlife depredation or other ecological damage.

Identify lands within the range of federally proposed and listed species as open to fluid mineral leasing unless otherwise closed, subject to major constraints including project relocation or exclusion, seasonal activity restriction, and extended application processing time as described in the Controlled Surface Use- Protected Species stipulation (Appendix G);

Identify lands within the range of federal candidate, state listed or bureau sensitive species as open to fluid mineral leasing unless otherwise closed, subject to moderate constraints as described in the Controlled Surface Use- Sensitive Species stipulation (Appendix G);

Identify designated or proposed critical habitat as open to fluid mineral leasing unless otherwise closed, subject to major constraints as described in the Controlled Surface Use- Critical Habitat stipulation (Appendix G);

Identify important foraging, wintering or nesting habitat for raptors as open to fluid mineral leasing unless otherwise closed, subject to major constraints as described in the Controlled Surface Use-Raptor stipulation (Appendix G), such areas include, but are not limited to: Hopper Mountain, Kaweah, San Joaquin River Gorge, Kettleman Hills, Chico Martinez, and the Temblor and Caliente NCLWMAs.

Designate the following species as priority species for management and protection:

- Special Status Species;
- species of interest to CDF&G, USFWS and NMFS (such as game species, furbearers, migratory birds, marine mammals, raptors);
- species that are rare;
- species with declining populations or with limited distributions; or
- species with high ecological importance (such as keystone, pollinator or host species)

Designate as priority plant communities and habitats; examples of which include alkali sink, Bishop pine forest, California bay forest, central maritime chaparral, coastal scrub, cypress woodlands, giant sequoia forest, oak woodland, riparian communities, serpentine chaparral, wetland and vernal pool communities, based on the following criteria:

- designated critical habitat;
- rarity,
- limited geographic distribution;
- high ecological importance;
- unique species assemblages; or
- at risk from climate change, pathogens, or other factors.

Implement the following specific management as appropriate in areas of ecological importance, ACECs, and where priority communities, habitats and species occur;

- Closure to mineral material disposal;
- Limitations on modes of travel and travel routes;
- Restrictions on fluid mineral leasing (CSU, NSO, Closure);
- Restrictions on livestock grazing;
- Restrictions on recreational opportunities (camping, campfires, hunting, shooting sports, seasonal closures);
- Recommend proposal for withdrawal from all or a portion of the mining laws; and/or
- Prohibition of the casual collection of plants or their parts without prior BLM authorization.

Identify and manage the following areas as areas of ecological importance;

Atwell Island: for protection of sensitive biological resources and to restore retired farmlands to native habitat, including wetlands.

- Identify as available for livestock grazing but only for the purpose of vegetation management to meet resource objectives other than the production of livestock forage;
- Prohibit campfires;
- Prohibit overnight camping and use except for; future specific areas identified for nocturnal visitation for wildlife viewing and stargazing;
- Prohibit cross country equestrian travel;
- Seasonally prohibit access to wetland areas, as needed to support restoration objectives;
- Coordinate with CDFG to prohibit hunting except as allowed by Special Recreation Permit and/or specially organized hunt activity; furthermore prohibit the discharge of firearms for shooting sport activities;
- Prohibit pets and other domesticated animals (not including authorized livestock) from wetland areas;
- Require all pets and domestic animals (not including authorized livestock) to be on a leash. Special Recreation Permits may be issued for activities allowing off-leash activity, such as, dog trial events; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Deer Spring: for protection of riparian resources and deer habitat.

- Identify as closed to fluid mineral leasing;
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law; and
- Identify as unavailable for livestock grazing.

Caliente Creek: for protection of the riparian ecosystem and conservation of habitat for Tehachapi slender salamander, Yellow-blotched salamander, and Bakersfield cactus.

Frog Pond: for protection of riparian ecosystems including California bay forest.

- Identify as open for fluid mineral leasing, subject to major constraints (CSU-Priority Species, Plant Communities and Habitats stipulations);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as closed to mineral materials disposals;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;

- Prohibit equestrian use;
- Prohibit the casual collection of plants or their parts without BLM authorization; and
- Manage water resources for the benefit of the riparian ecosystem.

NCLWMA(s) (Caliente/Monache/Temblor): for improvement and maintenance of diverse assemblage of vegetative communities to benefit wildlife species, including raptors and game species, such as, deer, quail and chukar.

- Continue the withdrawal from application under the non-mineral public land laws and from disposition under the homestead, desert land entry, and script selection laws.
- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU-Raptor stipulations)

South Fork of the Kern River: for protection of the riparian forest and critical habitat for the southwestern willow flycatcher; promote nesting habitat for both the southwestern willow flycatcher and the California yellow-billed cuckoo.

- Identify southwestern willow flycatcher critical habitat as unavailable for livestock grazing.

Table Mountain and Kennedy Table: for protection of vernal pools, listed vernal pool species and critical habitat for vernal pool species.

Recommend the following areas as Areas of Critical Environmental Concern (ACECs) based on their significant biological resource values; Ancient Lakeshores ACEC; Bitter Creek ACEC, Blue Ridge ACEC; Compensation Lands ACEC; Erskine Creek ACEC; Hopper Mountain ACEC; Kaweah ACEC; Kettleman Hills ACEC; Lokern-Buena Vista ACEC; Los Osos ACEC; Piute Cypress ACEC; and Pt. Sal ACEC.

Key Implementation

Partner with other agencies, institutions, organizations, and individuals to improve knowledge of the species within the Bakersfield FO and their understanding of the natural and ecological processes that influence local ecosystems. With partner agencies, coordinate monitoring of special status species for changes in population size, distribution, habitat use, and potential and existing threats.

Inventory species that are not well studied or understood, such as insects and other invertebrates, fungi, lichens, and bryophytes (such as, mosses and liverworts). Continue to improve inventories of other species.

Support inventories, monitoring, and research that identifies and defines factors that influence species population trends, especially listed and special status species. Support other research on the biology of species found in the Bakersfield FO.

Control and eliminate weeds through collaboration with weed management area members, state agencies, federal agencies, conservation organizations, and other interested parties.

Treat weed populations following integrated pest management principles (BLM 1992). Monitor to determine effectiveness of control measures and to ensure that known target weed populations are stable or diminishing.

Eliminate founder invasive nonnative weed populations before they can spread. Survey to detect new nonnative populations and begin treatment of newly discovered populations within five years of discovery.

Minimize the introduction and spread of weeds by BLM employees and public land users. For example, promote weed education, monitor corrals, promote or require weed-free hay, wash vehicles and equipment coming from other areas, and prohibit livestock and horse trailers from being cleaned on public lands.

Acquire within the Caliente Creek area of ecological importance, lands with Tehachapi slender salamander and Bakersfield cactus.

Acquire within the Upper Cuyama Valley area of ecological importance, lands with California jewelflower or Kern primrose sphinx moth.

Establish partnerships and collaborate with adjacent landowners, interested publics, stakeholders, conservation organizations, and other agencies to coordinate management and protect areas of ecological importance and ACECs.

2.2.3 CAVES AND KARST RESOURCES

Goal

To secure, protect, and preserve significant caves and their associated cave resources on public lands for the perpetual use, enjoyment, and benefit of all people and to foster increased cooperation and exchange of information between the Bakersfield Field Office and those who utilize caves for scientific, education, or recreational purposes, in accordance with the Federal Cave Resources Protection Act of 1988.

Objectives

Through a designation of significance by the authorized officer and determination within the RMP, protect those known caves that possess significant cave resources, in accordance with 43 CFR 37.11(c).

Provide management framework to protect significant cave and karst resources, in accordance with BLM policy and guidelines.

Decisions

All newly discovered caves or sections of caves within the RMP decision area will be studied and inventoried for significant values. On determination of significance, the cave will be classified as Class I (open), Class II (restricted) or Class III (closed), described below. Interim management shall be as Class II to protect cave resources and may be restricted to permitted/authorized users.

Class I: These caves possess few or no sensitive features, their locations are generally widely known, and interpretive information may be available. These caves require no permit or notice to enter, but entry is recommended only for skilled and experienced cave users.

Class II: These caves may possess sensitive features, including cultural resources, pristine examples of geological formations, and sensitive biological resources. Restricted caves may be closed or further restricted to permitted and approved entry for a variety of reasons, including but not limited to: seasonal closures for the protection of sensitive biological resources, closures during periods of extreme public safety concerns (e.g., flooding), or restriction to permitted/authorized users only for scientific study, educational purpose and/or organized recreational experiences.

Class III: These caves are closed to protect sensitive cave resources. Entry requires specific authorization and may be provided only for scientific research or education.

2.2.4 CULTURAL RESOURCES

Goals

Identify, preserve, and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations (FLPMA, Section 103 (c), 201(a) and (c); National Historic Preservation Act, Section 110(a); Archaeological Resources Protection Act, Section 14(a).

Seek to reduce imminent threats and resolve potential conflicts from natural or human-caused deterioration, or potential conflict with other resource uses (FLPMA Sec. 103(c), NHPA 106, 110 (a) (2)) by ensuring that all authorizations for land use and resource use will comply with the NHPA Section 106.

Native Americans have access to public lands to conduct traditional cultural and religious practices.

Objectives

Manage evaluated cultural resources and those projected to occur within the decision area within one of six cultural use allocations: scientific use; conserve for future use; traditional use; public use; experimental use; or discharged from use, as described in BLM guidance.

Design BLM actions and authorizations to minimize impacts on cultural resources including places of traditional cultural and religious importance to Native Americans.

Identify places of religious and cultural importance to Native Americans and facilitate access to these locations for traditional use.

Decisions

Allocate evaluated cultural resources within the decision area as "scientific use" for study, determination of eligibility and appropriate recordation, pending assignment to another use category, with the exception of the following:

- Allocate the Huasna Peak as "traditional use".
- Allocate the Keyesville historic sites of Walker Cabin, Keyes Mine, and Keyes Cemetery as "conserve for future use", until such time as stabilization and restoration work allows for public use.
- Allocate the Piedras Blancas Light Station ONA as "public use".
- Allocate all rock art sites, known and projected to occur, as "conserve for future use".
- Allocate the Walker Pass NHL as "public use".

Eliminate, relocate, or redesign uses following site specific NEPA that may result or have resulted in impacts on significant cultural resources including places of traditional cultural and religious importance to Native Americans.

Restore or stabilize cultural resources when they are damaged or deteriorating.

Identify lands containing significant cultural resources as open to fluid mineral leasing unless otherwise closed, subject to major constraints as described in the Controlled Surface Use (CSU) - Cultural Resources stipulation (Appendix G).

2.2.5 LANDS WITH WILDERNESS CHARACTERISTICS

Goal

Ensure that adequate consideration and protection, where appropriate, is given to lands with wilderness characteristics outside of designated Wilderness and Wilderness Study Areas and that these areas are managed so as not to impair these characteristics.

Objective

Provide a management framework to protect wilderness characteristics as an integral component of multiple use management of Planning Area BLM lands when it is consistent with other goals and objectives of the RMP.

2.2.6 PALEONTOLOGICAL RESOURCES

Goal

Identify, manage, and protect paleontological resources for scientific research, educational purposes, and public use.

Objective

Identify, manage, and protect important paleontological sites.

Decisions

Implement measures to protect paleontological resources including, but not be limited to:

- Avoidance,
- Fencing,
- Stabilization,
- Data recovery through collection or excavation,
- Interpretation, or
- Administrative closure.

Identify areas at risk of damage from illegal activities and implement management to discourage those activities.

Eliminate, relocate, or redesign uses following site specific NEPA (which may include a field inventory and data recovery) that may result or have resulted in impacts on fossil-bearing geologic units identified as Potential Fossil Yield Class (PFYC) 4 or 5.

Minimize or prevent human-caused damage to paleontological resources through educational and interpretive outreach programs focusing use on less significant paleontological resources.

Accommodate permit requests for scientific research by qualified individuals or institutions.

2.2.7 SOIL RESOURCES

Goal

Soils exhibit functional biological and physical characteristics that are appropriate to soil type, climate, and land form.

Objective

Manage soils to meet or exceed the Soil Standard of Rangeland Health (Appendix F-1), as indicated by ground or plant cover, diversity of plant species, minimal evidence of accelerated wind and water erosion and the presence of the biological soil crusts where appropriate.

Decisions

Design BLM programs and management activities and authorize projects to minimize impacts on soil productivity by implementing BMPs (Appendix L). Specifically minimize disturbance of the following soils types:

- Serpentine Soils;
- Soils supporting "Biological Crusts" – hosting communities of cyanobacteria, mosses, lichens and liverworts;
- Soils highly susceptible to erosion or compaction; and
- Soils hosting high levels of Valley Fever spores.

2.2.8 VISUAL RESOURCES

Goal

Public lands demonstrate a range of visual resource values that allow for development and provide opportunities for scenic appreciation.

Objective

Utilize visual resource management classes for all public lands within the decision area to preserve and enhance scenic quality for present and future generations.

Ensure approval of projects outside the CPNM boundary but within its viewshed comply with the visual resource management objectives as described in the CPNM RMP (BLM 2010).

2.2.9 WATER RESOURCES

Goal

Surface and groundwater comply with the objective of the Clean Water Act and all other applicable water quality requirements.

Objectives

Manage water resources to meet or exceed the Standards of Rangeland Health (Appendix F-1) by maintaining the existing quality and beneficial uses of water, protecting them where they are threatened, and restoring them where they are currently degraded.

Manage riparian/wetland vegetation, structure, and diversity and stream channels and floodplains so that they are functional and achieving physical and biological objectives.

Decisions

Design BLM program and management activities and authorize projects to meet water quality standards and maintain beneficial uses by implementing State approved BMPs (Management Measures for Polluted Runoff, see Appendix L) within the Central Coast, South Coast and Tulare basins.

Implement management actions to reduce non-point source pollution contributing to impaired water quality in any basin or segment listed as impaired in accordance with Section 303(d) of the Clean Water Act (e.g., a segment of Salinas River).

Implement BMPs for riparian/wetland health for maintenance of vegetation cover and diversity, and the physical stability of stream banks (Appendix L).

Applications for water developments or diversions on public lands would be approved only if resource objectives including wildlife, riparian, and livestock grazing needs, have been met.

Complete State water rights reporting requirements to maintain existing licenses and continue water diversion and use authorizations. Apply for new licenses and use authorizations as appropriate.

2.2.10 WILDLAND FIRE ECOLOGY AND MANAGEMENT

Goals

Firefighter and public safety is the single, overriding priority in every fire management activity.

Minimize suppression costs while considering firefighter and public safety, benefits, and human and resource values to be protected.

Recognize fire as an essential ecological process and use wildland fire (both planned and unplanned ignitions) to restore or sustain ecosystem health, where appropriate.

Objectives

Maintain areas in all Fire Management Units (FMUs) that are currently in Fire Regime Condition Class 1 and manage to improve conditions in Class 2 and Class 3 areas.

Prevent, to the extent possible, the movement of wildfires from the wildlands into the Wildland Urban Interface (WUI) area, and out the WUI area into the wildlands.

Decisions

Conduct fire management planning, preparedness, prevention, suppression, fire use, restoration and rehabilitation, monitoring and education on an interagency basis with the involvement of cooperators and partners.

Identify the following three geographic areas as suitable for the use of wildland fire for resource benefit (see Map 2.1):

- South Sierra Fire Management Unit
- Domeland Fire Management Unit
- Portion of the Three Rivers Fire Management Unit protected by the National Park Service

Take suppression actions in the remainder of the Decision Area, commensurate with human and natural resource values at risk. Where possible, use existing natural and human-made fire control barriers, such as roads, trails, fuelbreaks and rock outcroppings rather than constructing new firelines.

Use a decision support process to analyze and document fire suppression strategies and tactics. Suppression actions may not necessarily be limited to those that result in the fewest number of acres burned, after consideration of firefighter and public safety, values at risk, resource protection needs and current and expected conditions at the time of the fire.

Use Minimum Impact Suppression Tactics (MIST) or other modified suppression techniques when suppressing fires in sensitive areas, including but not limited to: Wilderness, Wilderness Study Areas, lands managed for wilderness characteristics, culturally significant areas and ACECs. Fire managers will consult a resource advisor or archaeologist to ensure resource protection needs are addressed.

Assess all wildland fire areas for post-fire Emergency Stabilization and Rehabilitation (ESR) needs and submit ESR plans for funding. Implement approved activities in a timely manner.

Participate in local Fire Safe Councils or other community organizations to develop and implement collaborative fire mitigation and prevention strategies with communities at risk, and coordinate on the preparation of Community Wildfire Protection Plans.

Implement, as appropriate, the full range of wildland fire and fuels management practices, including prescribed fire, mechanical, chemical, biological, and cultural treatments that will support hazardous fuels reduction in coordination with vegetation and habitat management objectives and resource protection needs.

RESOURCE USES

2.2.11 COMPREHENSIVE TRAIL AND TRAVEL MANAGEMENT

Goal

Improve access and recreational opportunities that complement the character of each geographic zone and the surrounding regions.

Objectives

Provide reasonable, safe, and environmentally sound access to visitors, local residents, licensed and permitted activities, and property owners through coordination and collaboration on travel systems with other agencies, state and local governments and interested stakeholders.

Reduce or halt proliferation of motorized and non-motorized routes.

Maintain an accurate route inventory for management purposes, and for the production of both general and recreation specific Transportation Management Network maps.

Manage OHV use to protect environmental resources, promote public safety, and provide OHV use opportunities where appropriate. Administratively designate the specific areas on public lands on which the use of OHVs is, and is not permitted.

Decisions

Delineate Travel Management Areas (TMAs) and associated modes of access and travel, as follows;

> Primitive TMA (approximately 135,800 acres): Primarily recreational traffic, access essentially cross country, with few designated and maintained trails. Area entirely restricted to non-motorized and non-mechanized modes of transport. Aircraft take-off and landing, except emergency, would be prohibited.
>
> Keyesville TMA (approximately 10,810 acres): Primarily recreational traffic, no area-wide mode of transport restrictions, motorized and mechanized use limited to designated routes

for these uses. Over time specific routes may be redesignated to limit to specific modes of transport in order to maintain recreational opportunity and experience.

Temblor TMA (approximately 20,860 acres): Primarily recreational traffic, no area-wide mode of transport restrictions, motorized and mechanized use limited to designated routes for these uses. Permits for motorized and mechanized competitive events would not be issued. Over time specific routes may be redesignated to limit to specific modes of transport in order to maintain recreational opportunity and experience.

Intensive TMA (approximately 40,150 acres): Primarily industrial/commercial traffic, all travel on designated routes. No area-wide mode of transport restrictions. Implement a program of route reduction addressing route construction, use, and abandonment (including restoration) based on a balance between industrial needs and environmental concerns.

Extensive TMA (approximately 196,360 acres): General traffic from multiple uses, motorized and mechanized use limited to routes designated for these uses. No area-wide mode of transport restrictions.

Close areas where off-highway vehicles are causing or will cause unacceptable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence.

Define route designations and limitations as follows:

Motorized: a route allowing all modes of transport, motorized vehicles including, standard (street legal) passenger vehicles and OHVs (motorcycles, ATVs, jeeps, and specialized vehicles etc.).

Non-motorized: a route allowing modes of transport that are not motor driven (regardless of motor type e.g., gas, diesel, electric). Allowable modes of transport include, moving by foot, stock or pack animal, non-motorized boat (kayak, raft etc.), or mechanical vehicle such as a bicycle.

Non-mechanized: a route allowing only travel by natural means, such as by foot or horseback, except for approved, non-motorized access devices covered under the Americans with Disabilities Act.

Authorized: a route restricted to use by authorized user including, permittees, lessees and any other form of authorization from the BLM, for a specific route. Mode of travel restrictions may be applied in the specific BLM authorization.

Closed: a route prohibiting all types and modes of transport (including all public, authorized and administrative uses); Closed routes can be restored.

Apply the following criteria in route designation including the criteria defined in 43 CFR 8342.1;

- [Designated] trails shall be located in a manner to minimize impacts to physical resources (soils, watershed, vegetation, air, and other resources) and to prevent impairment of wilderness suitability;
- [Designated] trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats; and
- [Designated] trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreation uses.
- [Designated] areas and trails shall not be located in officially designated wilderness areas or primitive areas. Areas and trails shall be located in natural areas only if the authorized officer determines that off-road vehicle use in such locations will not adversely affect their natural, aesthetic, scenic or other values for which the areas are established.

Consider, in addition to the previously identified criteria the following in all route designations (including re-designations);

- Environmental conditions, such as: soil stability, important wildlife habitat, special status species habitat, proximity to riparian areas or 303(d) streams, and visual resources.
- User conflicts, such as: motorized versus non-motorized and motorized or mechanized versus non-mechanized.
- Administrative purposes, such as: wildland fire suppression activities, safety, and resource management and permitted activities.
- Public purposes, such as: accessing public or private land, destinations for specific activities, and types of desired use (motorized, mechanized, non-motorized/ or non-mechanized).
- Route, mode-of-transport and size limitations, such as: > 50-inch wheel base (full size vehicles), < 50-inch wheel base (all-terrain vehicles), single-track vehicles (motorcycles or mountain bikes), and equestrian or pedestrian only trails.

Apply the following principles when making route designation modifications:

- Encourage public involvement in the travel management processes at all times;
- Coordinate route designations with individual stakeholders, user groups, tribes, agencies and local governments;
- Document and record route designation changes appropriately;
- Provide opportunity for public review and comment on route designation changes; and

Implement the following guidelines for management and maintenance of the travel network:

- Designate routes within newly acquired properties, rights-of-way, and easements at the time of, and in conjunction with the acquisition;

- Provide designations for newly constructed, modified, or realigned routes and routes missed by the 2009 Digital Inventory.
- Designate routes associated with new authorizations in conjunction with the normal application process and approval. As existing authorizations are renewed, their designation may be altered accordingly. These redesignations would be documented in the associated NEPA documentation, and amended in the route database and GIS. Information on new and redesignations would be available to the public;
- Address route redesignations as physical route conditions changes (erosion, washout etc.); and

Establish protocols to effectively monitor and gather data on route usage, route condition, and noncompliance with designations. These protocols would include:

- Identification of high traffic routes and areas;
- Annual monitoring of a random selection of routes to gauge effectiveness of travel management decisions and identify resource conflicts; and
- Annual review of a minimum of 10% of designated routes, and appropriate updates to the existing route inventory.

Key Implementation Decisions

Ensure existing use of public lands in the Temblor area does not result from inappropriate travel across private property through the acquisition of legal public access routes to the Temblor area.

2.2.12 LANDS AND REALTY

Goal

Provide lands, interests in land, and authorizations for public and private uses while maintaining and improving resource values and public land administration.

Objectives

Meet other resource objectives through retention and/or land tenure adjustments.

Meet public, private, and Federal agency needs for realty-related land use authorizations and land withdrawals, including those authorizations necessary for wind, solar, biomass, and other forms of renewable energy development

Increase public access to public lands when consistent with other resource objectives.

Land Tenure

Decisions

Disposal of the following areas is not deemed to serve national interest; components of the NLCS; lands managed for wilderness characteristics; Land and Water Conservation Fund (LWCF)

acquisitions; leased fluid mineral estate; mineral estate with significant fluid mineral potential[3]; and SRMAs.

Retain all lands and interest in lands in federal ownership unless disposal is deemed to serve national interest. Disposal is deemed to serve national interest if the following criteria are determined to be met through site specific investigation and, therefore, would be considered available for disposal:

- Disposal of lands would promote effective administration;
- Lands do not contain important cultural, biological, recreational, or other resource values, the loss of which cannot be adequately mitigated;
- Lands do not contribute to a regional conservation strategy;
- Lands do not have overriding public values or interests; and
- Lands do not represent substantial public investments.

Lands considered available for disposal that meet the following criteria as described in section 203(a) of FLPMA may be sold under direct, competitive, or modified sale:

- such tract because of its location or other characteristics is difficult and uneconomic to manage as part of the public lands, and is not suitable for management by another department or agency; or
- such tract was acquired for specific purpose and the tract is no longer required for that or any other purpose; or
- disposal of such tract will serve important public objectives, including but not limited to, expansion of communities and economic development, which cannot be achieved prudently or feasibly on land other than public land and which outweigh other public objectives and values, including, but not limited to, recreation and scenic values, which would be served by maintaining such tract in federal ownership.

Seek acquisition of lands and interest in lands meeting the following criteria from willing grantors;

- Demonstrate high cultural, biological or other natural resource values, important recreational opportunities or mineral potential;
- Located within specially designated areas (e.g., ACECs, Components of the NLCS, SRMAs);
- Provide access to existing parcels of public lands; and
- Promote effective administration.

Land Use Authorizations

Decisions

Continue the designation of existing and potential utility corridors delineated in the Western Regional Utility Corridor Study of 1993 as right-of-way corridors.

[3] Retention of mineral estate does not preclude disposal of public lands surface.

Identify Wilderness and lands within the PCNST corridor as exclusion areas for all types of rights-of-way.

Identify WSAs as rights-of-way avoidance areas in accordance with H 8550-1 (IMP).

Resolve unauthorized uses or occupancy to assure consistency with RMP goals and objectives.

Apply resource specific, Best Management Practices (such as BMPs for VRM, air, soil, water, biological resources, etc., see Appendix L) as terms and conditions to ROW authorizations to minimize environmental impacts.

Key Implementation Decisions

Commercial filming permits that are routine in nature (such as less that 14 days in duration and less than 50 people, use designated routes or previously disturbed areas, effect no present traditional cultural values) would be issued pursuant to FLPMA, where no surface disturbance is proposed, and where there will be minimal to no impacts on resources.

Withdrawals

Decisions

Continue the existing withdrawal from application under the non-mineral public land laws and from disposition under the homestead, desert land entry and script selection laws for the Caliente, Monache-Walker Pass and Temblor National Cooperative Land and Wildlife Management Areas (NCLWMAs) (183,620 acres)(Public Land Order 2460).

Continue the existing withdrawal from settlement, sale, location, or entry under the general land laws, including the United States mining laws, 30 U.S.C. Ch. 2 (1994), mineral leasing laws, 30 U.S.C. 181 *et seq*. (1994) and mineral material sale laws 30 U.S.C. 601-604 (1994), of Piedras Blancas Light Station (20 acres) (Public Land Order 7501).

Continue the existing withdrawal from all forms of appropriation under the public land laws, including the mining laws, 30 U.S.C. Ch. 2, but not from leasing under the mineral leasing laws, of the Piute Cypress Natural Area (760 acres) (Public Land Order 3510).

Recommend the amendment of the existing withdrawal from location under the General Mining Law, 30 U.S.C. Ch. 2, of the Keyesville (390 acres) and San Joaquin River Gorge (3,070 acres) areas to include the conditioning of entry to exclude such mining operations that require a Notice or Plan of Operations.

2.2.13 LIVESTOCK GRAZING

Goal

Manage livestock grazing authorizations in a manner that meets or exceeds the standards of Rangeland Health (Appendix F-1) and is consistent with other RMP goals.

Objective

Manage grazing authorizations to meet or exceed the Standards of Rangeland Health.

Decisions

Apply the appropriate central California grazing management guidelines (Appendix F-1) to the applicable grazing authorizations as needed to meet the Standards of Rangeland Health.

Manage livestock grazing on individual pastures of allotments or entire allotments which lie primarily within the Bakersfield FO Planning Area in conformance with this RMP's goals and objectives. Allow management of livestock grazing on individual pastures of allotments or entire allotments which lie primarily within other Field Office or BLM jurisdictional boundaries in conformance with the goals and objectives applicable to the managing office's land use plan (Maps LG-A, LG-B, LG-C, LG-D and LG-E, in separate map packet).

2.2.14 MINERALS MANAGEMENT

Goal

Support development of mineral resources on public lands in an environmentally sound manner.

Leasable Minerals

Objective

Facilitate reasonable, economical, and environmentally sound exploration and development of leasable minerals while minimizing impacts to resources.

Fluid Minerals

Decisions

Identify 0 acres as open to fluid mineral leasing, subject to existing regulations and formal orders; and the terms and conditions of the standard lease form.

Identify 0 acres as open to fluid mineral leasing, subject to moderate constraints.

Identify 149,200 acres as closed to fluid mineral leasing:

- Non-discretionary closures – Wilderness, WSAs, Piedras Blancas ONA, and the PCNST
- Discretionary closures – some ACECs (Blue Ridge, Erskine Creek, Piute Cypress, and Point Sal) and Deer Spring area of ecological importance.

Identify 26,440 acres, in addition to that closed to all fluid mineral leasing as closed only to geothermal leasing:

- Discretionary closures – Kaweah ACEC.

Establish the major constraint "CSU - Protected Species" for the purpose of minimizing or eliminating adverse effects associated with fluid mineral development on federally proposed and listed species with the following stipulation language:

> *All or a portion of the lease occurs within the range of one or more plant or animal species that are either listed or proposed for listing as threatened or endangered by the USFWS. A list of such species will be provided at the time of leasing and updated as necessary over the term of the lease. To determine whether species on this list or their habitat are present, a preliminary environmental review will be conducted for all surface disturbing activities. Presence of habitat or species may result in the proposed action being moved, modified, or delayed to mitigate project effects. Offsite compensation that would satisfactorily offset the loss of habitat may be required. Prohibition of all surface disturbing activities on the lease will only occur as needed to avoid jeopardizing the continued existence of a listed or proposed species, or when the proposed action is inconsistent with the recovery needs of a species as identified in an approved USFWS Recovery Plan through consultation with USFWS. Furthermore, processing times for proposed actions may be delayed beyond established standards to accommodate species surveys, and consultation or conferencing with the USFWS. This stipulation shall not be waived; however, it may be modified or an exception may be granted as follows:*
>
> ***Exception:*** *The Authorized Officer may grant an exception if an environmental review determines the action as proposed or conditioned would have no effect on listed or proposed species.*
>
> ***Modification:*** *The Authorized Officer may modify this stipulation to reflect new information with regard to the range of listed or proposed species through the expansion or reduction of lands subject to this stipulation for a specific species.*

Establish the major constraint "CSU - Sensitive Species" for the purpose of minimizing or eliminating adverse effects associated with fluid mineral development on federal candidate, State listed and BLM sensitive species with the following stipulation language:

> *All or a portion of this lease is within the range of one or more plant or animal species that are either federal candidates for listing as threatened or endangered (federal candidate), are listed by the State of California as threatened or endangered (state listed), or are designated by the BLM as sensitive (BLM sensitive). A list of species will be provided at the time of leasing and updated as necessary over the term of the lease. To determine whether species on this list or their habitat are present, a preliminary environmental review will be conducted for all surface disturbing activities. Presence of habitat or species may result in the proposed action being moved more than 200 meters (656 feet) but not more than a quarter-mile or off of the lease and prohibition of activities during seasonal use period. Furthermore, processing times for proposed actions may be delayed beyond established standards to accommodate species surveys, and coordination with the USFWS and California Department of Fish and Game. This stipulation shall not be waived; however, it may be granted exception or modified as follows:*
>
> ***Exception:*** *The Authorized Officer may grant an exception if an environmental review determines the action as proposed or conditioned would have no effect on federal candidate, state listed, and BLM sensitive species.*

***Modification**: The Authorized Officer may modify the stipulation to reflect new information with regard to federal candidate, state listed or BLM sensitive species lists. Furthermore, the authorized officer may modify the maximum distance that a potential location could be moved to extend farther than the stated quarter-mile to maintain the sensitive species protection goals.*

Establish the major constraint "CSU - Raptor" for the purpose of minimizing or eliminating adverse effects associated with fluid mineral development on sensitive raptor foraging areas, winter roosting areas, or nest sites with the following stipulation language:

All or a portion of this lease has been identified as an important raptor foraging, wintering, or nesting area. Any proposed surface disturbing activity will be reviewed to determine if the activity would affect raptor foraging, wintering, or nesting habitat. Determination of effects to raptor foraging, wintering, or nesting habitat may result in the proposed action being moved more than 200 meters (656 feet) but not more than a half-mile and prohibition of activities during seasonal use period. This stipulation may be granted exception, modified, or waived as follows:

***Exception:** The Authorized Officer may grant an exception if the operator submits a plan that demonstrates that impacts from the proposed action are minimal or can be adequately mitigated.*

***Modification:** The Authorized Officer may modify the distance and other provisions of this stipulation based on new information and increasing or decreasing levels of the impacts anticipated from fluid mineral development.*

***Waiver**: The Authorized Officer may waive the stipulation should new information show the area no longer contains sensitive raptor habitat for foraging, winter roosting, or nesting.*

Establish the major constraint "CSU – Critical Habitat" for the purpose of minimizing or eliminating adverse effects associated with fluid mineral development on habitat designated as critical, or is proposed for designation as critical habitat by the USFWS with the following stipulation language:

All or a portion of this lease lies within an area that is designated as critical habitat, or is proposed for designation as critical habitat by the USFWS. A list of these areas affecting this lease will be provided at the time of leasing and will be updated as necessary over the term of the lease. Any proposed surface disturbing activity occurring on the affected portions of this lease will be reviewed to determine if the activity would affect designated or proposed critical habitat. Determination of effects to designated or proposed critical habitat may result in the proposed action being moved, modified, seasonally restricted, or delayed. Consultation or conference with the USFWS is required if designated or proposed critical habitat may be affected. Off-site compensation that would satisfactorily offset the loss of habitat may be required. Prohibition of all surface disturbing activities on the lease will only occur as needed to avoid destroying or adversely modifying critical habitat or proposed critical habitat, or when the proposed action is inconsistent with the recovery needs identified in an approved USFWS Recovery Plan based on consultation with USFWS. Furthermore, processing times for proposed actions may be delayed beyond established standards to

accommodate species surveys, and consultation or conferencing with the USFWS. This stipulation shall not be waived; however, it may be granted exception or modified as follows:

Exception: *The Authorized Officer may grant an exception if an environmental review determines the action as proposed or conditioned would have no effect on critical habitat or proposed critical habitat.*

Modification*: The Authorized Officer may modify this stipulation to reflect new information with regard to the critical habitat or proposed critical habitat through the expansion or reduction of lands subject to this stipulation for a specific species.*

Establish the major constraint "CSU – Priority Species, Plant Communities and Habitats" for the purpose of minimizing or eliminating adverse effects associated with fluid mineral development on rare and/or endemic vegetation, plants, and communities, including riparian and serpentine endemics, with the following stipulation language:

All or a portion of the lease has been identified by the current RMP (i.e., ACECs and areas of ecological importance with this stipulation prescribed) as containing priority species, plant communities, or habitat that may be adversely affected by fluid mineral development. A list of affected parcels or portions of the lease will be provided at the time of leasing. To identify the possibility of adverse impact resulting from fluid mineral development, a preliminary environmental review will be conducted for all surface disturbing activities. Identification of adverse impacts may result in the proposed action being moved, modified, seasonally delayed, or prohibited from all or a portion of this lease. Furthermore, processing times for proposed actions may be delayed beyond established standards to accommodate species surveys. This stipulation shall not be waived, but may be granted exception or modified as follows:

Exception: *The Authorized Officer may grant an exception if an environmental review determines the action as proposed or conditioned would have no effect on priority species, plant communities, or habitats.*

Modification*: The Authorized Officer may modify the stipulation to reflect new information with regard to the presence of priority species, plant communities, or habitat through the expansion or reduction of lands subject to this stipulation.*

Establish the major constraint "CSU – Cultural Resources" for the purpose of minimizing or eliminating adverse effects associated with fluid mineral development on National Register-listed or eligible cultural properties with the following stipulation language:

All or a portion of the lease contains National Register-listed or potentially eligible cultural properties that may be adversely affected by fluid mineral development. A list of affected parcels or portions of the lease will be provided at the time of leasing. To identify the possibility of adverse impacts resulting from fluid mineral development, a preliminary cultural resource review/survey will be conducted for all surface disturbing activities. Identification of adverse impacts may result in the proposed action being moved or modified. Surface-disturbing activities would be prohibited on the portion of the lease where National Register-listed properties or properties potentially eligible for listing on the National Register occur. This stipulation may be modified, waived, or granted exception as follows:

Exception: *The Authorized Officer may grant an exception, with concurrence from the California State Historic Preservation Office and Native American tribes, if a subsequent formal eligibility evaluation indicates the cultural property is ineligible.*

Modification: *The Authorized Officer may modify the stipulation to reflect new information from formal eligibility evaluations for cultural properties through the expansion or reduction of land where surface disturbing activities would be prohibited.*

Waiver: *The Authorized Officer may grant a waiver to the stipulation should the results of formal eligibility evaluation determine all cultural properties ineligible for listing on the National Register.*

Establish the major constraint "CSU – Defense" for the purpose of minimizing or eliminating conflict between fluid mineral development and military base operations with the following stipulation language:

All or a portion of this lease contains federal mineral estate under the surface administration of the Department of Defense. Surface disturbing activities may be moved, modified, or prohibited at the discretion of the Base Commander(s) to ensure these activities do not interfere with military activity on the base and to ensure personnel safety. Furthermore, processing times for proposed actions may be delayed beyond established standards to accommodate review and coordination with the Base Commander(s). This stipulation shall not be modified or granted exception; however, it may be waived as follows:

Waiver: *The Authorized Officer may grant a waiver to this stipulation if the surface administration changes from the Department of Defense to another entity.*

Establish the major constraint "CSU – Existing Surface Use/Management" for the purpose of minimizing or eliminating conflict between fluid mineral development and existing surface use on both public lands and split estate overlying federal minerals, including risk to public health and safety, and social and economic impacts (noise, aesthetics, etc.) with the following stipulation language:

All or a portion of the lease contains federal mineral estate underlying surface with an established use or management that may be incompatible with fluid mineral development. A preliminary environmental review will be conducted for all surface disturbing activities to identify possible conflict between surface use and fluid mineral development. Surface disturbing activities may be moved, modified, or prohibited to accommodate the existing surface use should the Authorized Officer determine the incompatibility of these uses. Specifically, fluid mineral development shall not occur:

(1) Closer to any development (e.g., public highway, institution, or place of public assembly) than allowed by the county/city regulation or statue applicable to the area in which the proposed action occurs (including those exceptions where closer spacing is allowed);

(2) Within 200 feet of an occupied dwelling;

(3) In a manner that significantly and adversely impacts natural and/or cultural resources of which the surface owner/administrator is charged with the management and protection; or

(4) In a manner that significantly and adversely impacts existing recreation opportunity of which the surface owner/administrator is charged with the management and protection.

Furthermore, processing times for proposed actions may be delayed beyond established standards to accommodate review and coordination with the surface owner/administrator. This stipulation shall not be waived, but may be granted exception or modified as follows:

***Exception**: The Authorized Officer may grant an exception where a surface use agreement exists between the lessee and surface owner/administrator that allows for the proposed fluid mineral development. Furthermore, exception may be granted where the proposed action is deemed, following an environmental review, to have discountable or insignificant impacts on the existing surface use.*

***Modification**: The Authorized Officer may modify this stipulation to further restrict surface use for mineral development on a portion of or all the lease if a more stringent requirement with regard to the location of facilities is deemed necessary following an environmental review (e.g., greater than county/city restrictions on fluid mineral development).*

Establish the major constraint of "NSO – General" that prohibits surface disturbance on the entire lease for the purpose of minimizing or eliminating adverse effects on unique or significant natural and cultural resources that are incompatible with fluid mineral development with the following stipulation language:

All or a portion of this lease has been identified by the current RMP (e.g., ACECs and areas of ecological importance with this stipulation prescribed) as containing unique or significant natural or cultural values. No new surface disturbing activity is allowed on the lease. This stipulation may be granted exception, modified, or waived as follows:

***Exception:** The Authorized Officer may grant an exception if, after coordination with appropriate agency (e.g., CDFG, SHPO, and USFWS), an environmental review determines the action as proposed or conditioned would not impair the values present because of temporary conditions.*

***Modification:** The Authorized Officer may modify this stipulation to allow surface use on a portion or even all of the lease if an environmental review determines the action as proposed or conditioned would not impair the values present.*

***Waiver:** The Authorized Officer may grant a waiver if an environmental review determines the values for which the NSO was applied no longer exist.*

These stipulations and decisions do not apply to geophysical exploration.

Solid (Non-Energy) Leasable Minerals

Objective

Provide opportunities for reasonable, economical, and environmentally sound exploration and development of Solid (Non-Energy) leasable minerals while minimizing impacts to resources.

Decisions

Identify all ACECs, lands managed for wilderness characteristics and suitable segments of WSRs as closed to Solid (Non-Energy) leasable mineral development.

Locatable Minerals

Objective

Facilitate reasonable, economical, and environmentally sound exploration and development of locatable minerals, while ensuring compatibility with other resources and uses including public health and safety.

Decisions

Determine and designate the ACECs (as described in ACEC management); suitable WSR corridors; lands managed for wilderness characteristics; Frog Pond and Deer Spring areas of ecological importance; Huasna Peak and South Lake Cultural Area; and developed campgrounds as unsuitable for Casual Use, Notice, and Plan of Operation levels mining operations (43 CFR 3809.10). Segregate these areas and recommend proposal for its withdrawal from appropriation and all forms of mineral entry under the General Mining Law.

Salable Minerals

Objectives

Provide salable minerals needed for community and economic purposes and facilitate their reasonable, economical, and environmentally sound development where available and compatible with resource objectives.

Decisions

Identify all ACECs, lands managed for wilderness characteristics and suitable segments of WSRs as closed to mineral material disposal, unless otherwise noted for administrative purposes only.

2.2.15 Recreation and Visitor Services

Goal

Support growing demand for recreation access to public lands and maintain a diversity of recreation opportunities promoting a multiple use philosophy.

Objective

Coordinate recreation management activities through an ecosystem-based management style that considers the landscape setting and patterns of land ownership to fully realize program goals.

Decisions

Designate 22,550 acres as the Atwell Island Extensive Recreation Management Area with the following recreation objective, management actions and allowable use decisions;

> Within the life of the RMP the Atwell Island ERMA will offer recreation opportunities in a front country setting (restored wetland from abandoned farmland), that focus on wildlife viewing and appreciation, through the non-motorized/non-mechanized exploration of the restored area(s).

- Prohibit overnight camping and use except for; future specific areas identified for nocturnal visitation for wildlife viewing and stargazing.
- Coordinate with CDFG to prohibit hunting except as allowed by Special Recreation Permit and/or specially organized hunt activity; furthermore prohibit the discharge of firearms for shooting sport activities;
- Seasonally prohibit access to wetland areas, as needed to support restoration objectives.
- Prohibit pets and other domesticated animals (not including authorized livestock grazing) from wetland areas.
- Require all pets and domestic animals (not including authorized livestock grazing) to be on a leash. Special Recreation Permits may be issued for activities allowing off-leash activity, such as, dog trial events.

Designate 21,160 acres as the Case Mountain Extensive Recreation Management Area with the following recreation objective, management actions and allowable use decisions;

> Within the life of the RMP the Case Mountain ERMA will offer recreation opportunities in an unchanged middle country setting, which facilitates the visitors' freedom to participate in non-motorized activities that includes; mountain bicycling, camping and hunting.

- Prohibit the discharge of firearms, except the legal taking of game species.
- Acquire legal public access to suitable parking/staging area.
- Develop suitable facilities to support use at parking/staging areas; establishing standard amenity fees for use of such facilities.
- Manage and maintain connected trails for mountain bicycling experiences.
- Limit available commercial Special Recreation Permits for guide and outfitting services to no more than five (5). Special Recreation Permits for competitive events would not be issued.

Designate 12,240 acres (Map 2.2) as the Keyesville Special Recreation Management Area, established with a "destination" market strategy for southern and central California, including the population centers of Bakersfield, Los Angeles, Riverside and San Bernardino, along with nearby rural communities. The SRMA is subdivided into four (4) Recreational Management Zones, each with the following recreation objectives, management actions and allowable use decisions (see Appendix

H for a complete description of each RMZs targeted activities, experiences, benefits, and Natural Resource Recreation Settings);

Gold Fever RMZ: In visitor assessments, 65% of respondents who participated in targeted activities report the ability to realize the targeted experiences and benefits.

Targeted Activities: Cultural/historical discovery; trail use (motorized, mechanized and non-mechanized uses); and recreational gold prospecting

Targeted Experiences: Savoring the total sensory experience of a natural landscape; escaping everyday responsibilities for awhile; feeling good about the way shared cultural heritage is being protected; learning about things; just knowing this attraction is in or near the community

Targeted Benefits: *Personal:* Greater respect for shared cultural heritage; closer relationship with the natural world. *Community:* Greater understanding of the community's cultural identity; greater community involvement in recreation and other land use decisions. *Economic:* Improved local economic stability; maintenance of community's distinctive recreation tourism market. *Environmental:* Increased awareness and protection of natural landscapes; reduced negative human impacts such as litter, vegetative trampling, and unplanned trails.

- Provide extensive opportunities for interpretation and education, establishing expanded amenity fees for some of these experiences.
- Establish a permit system and fee for recreational gold prospecting.
- Stabilize and maintain historic buildings and facilities to support public use.
- Establish visitor contact station to originate interpretive and educational activities from.
- Prohibit the discharge of firearms, except the legal taking of game species.

French Gulch RMZ: In visitor assessments, 50% of respondents who participated in targeted activities report the ability to realize the targeted experiences and benefits.

Targeted Activities: Trail use (motorized, mechanized and non-mechanized uses); dispersed camping; and recreational gold prospecting

Targeted Experiences: Developing skills and abilities; testing personal endurance; gaining a greater sense of self-confidence; telling others about the trip; enjoying risk-taking adventure; and discussing equipment with others

Targeted Benefits: *Personal:* Improved mental well being; greater self-reliance; improved skills for outdoor enjoyment. *Community:* Heightened sense of satisfaction with the community. *Economic:* Improved local economic stability; maintenance of community's distinctive recreation tourism market. *Environmental:* Increased awareness and protection of natural landscapes; reduced negative human impacts such as litter, vegetative trampling, and unplanned trails.

- Create a versatile trail system supporting a variety of uses, skill levels and experiences through collaboration with user groups and partners.
- Support competitive and commercial activities through the Special Recreation Permit process including maintaining the designated "Keyesville Classic" race course.
- Allow specialized vehicle recreation (motorcycle and mountain bicycle trials experiences) at a number of sites identified for the purpose.
- Establish a permit system and fee recreational gold prospecting.

The Dam RMZ: In visitor assessments, 50% of respondents who participated in targeted activities report the ability to realize the targeted experiences and benefits.

Targeted Activities: White-water boating; water-play; and fishing

Targeted Experiences: High adventure; personal challenge; self discovery; appreciation for the power of the natural world

Targeted Benefits: *Personal:* Increase self-respect; sense of achievement. *Community:* Bonding through shared experiences. *Economic:* Increased draw to destination; promotion of local business (outfitters); improved local economic stability; maintenance of community's distinctive recreation tourism market. *Environmental:* Increased awareness and protection of natural landscapes; reduced negative human impacts such as litter, vegetative trampling, and unplanned trails.

- Manage Special Recreation Permitting for white-water boating in collaboration and through interagency agreement with the US Forest Service.
- Maintain existing white-water boating facilities at "Slippery Rock" and "BLM South" for use by both commercial and private boaters. Limit use of "Granite Launch" to authorized Special Recreation Permit holders. Prohibit use of the "Low-water Launch" by boaters upon completion of Granite Launch.
- Prohibit overnight camping and use of campfires.
- Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting.
- Establish a permit system and fee for recreational gold prospecting.
- Cables, ropes, or tethers shall not cross the river and must not create hazards for boaters or other river users.

Wallow Rock RMZ: In visitor assessments, 75% of respondents who participated in targeted activities report the ability to realize the targeted experiences and benefits.

Targeted Activities: Camping/Group Camping

Targeted Experiences: Enjoying the closeness of friends and family; relishing group affiliation and togetherness; enjoying meeting new people with similar interests

Targeted Benefits: *Personal:* Stronger ties with family and friends; restore mind from unwanted stress. *Community:* Greater interaction with visitors from different cultures.

Economic: Improved local economic stability; maintenance of community's distinctive recreation tourism market. *Environmental:* Increased awareness and protection of natural landscapes; reduced negative human impacts such as litter, vegetative trampling, and unplanned trails.

- Identify group and individual campsites within a developed campground, establishing *standard amenity* fees for use of facilities.
- Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting.
- Prohibit recreational gold prospecting.

Designate 9,250 acres (Map 2.3) as the San Joaquin River Gorge Special Recreation Management Area, established with a "community" market strategy for local communities, nearby rural areas and the population centers of Fresno-Clovis and Madera. The SRMA is subdivided into three (3) Recreational Management Zones, each with the following recreation objectives, management actions and allowable use decisions (see Appendix H for a complete description of each RMZs targeted activities, experiences, benefits, and Natural Resource Recreation Settings);

Pa'San RMZ: In visitor assessments, 50% of respondents who participated in targeted activities report the ability to realize the targeted experiences and benefits.

Targeted Activities: Hiking; mountain biking; and horseback riding

Targeted Experiences: Developing skills and abilities; testing personal endurance; savoring the total sensory experience of a natural landscape; escaping everyday responsibilities for awhile

Targeted Benefits: *Personal:* Greater self-reliance; improved skills for outdoor enjoyment; closer relationship with the natural world. *Community:* Greater freedom from urban living. *Economic:* More positive contributions to local and regional economies. *Environmental:* Increased awareness and protection of natural landscapes; reduced negative human impacts such as litter, vegetative trampling, and unplanned trails.

- Maintain, improve and expand a network of recreational trails.

Tahoot RMZ: In visitor assessments, 75% of respondents who participated in targeted activities report the ability to realize the targeted experiences and benefits.

Targeted Activities: Interpretation; environmental education; and camping

Targeted Experiences: Enjoying easy access to natural landscapes; enjoying access to hands-on environmental learning; enjoying needed physical exercise

Targeted Benefits: *Personal:* Better-informed and more responsible visitor; enhanced awareness and understanding of nature; increased appreciation of the area's cultural history. *Community:* Greater community valuation of its ethnic diversity; greater protection of the area's historic and archaeological sites. *Economic:* More positive contributions to local and

regional economies. *Environmental:* Increased awareness and protection of natural landscapes; reduced negative human impacts such as litter, vegetative trampling, and unplanned trails.

- Maintain, improve and expand a network of recreational facilities including trails, campgrounds, parking areas, visitor contact location and outdoor classrooms; establishing standard and expanded amenity fees as appropriate.
- Ensure that management balances the preservation of natural and cultural resources with the opportunity to provide for public recreation, interpretation and education about the natural and cultural heritage of the area.
- Provide nature-based educational opportunities locally and regionally to include outdoor classrooms and interpretation of natural and cultural resources.

Wu Ki'Oh RMZ: In visitor assessments, 50% of respondents who participated in targeted activities report the ability to realize the targeted experiences and benefits.

Targeted Activities: Fishing; water play; gold panning; and kayaking

Targeted Experiences: Developing skills and abilities; testing personal endurance; enjoying risk-taking adventure; savoring the total sensory experience of a natural landscape; escaping everyday responsibilities for awhile

Targeted Benefits: *Personal:* Greater self-reliance; improved skills for outdoor enjoyment; closer relationship with the natural world. *Community:* Greater freedom from urban living. *Economic:* More positive contributions to local and regional economies. *Environmental:* Increased awareness and protection of natural landscapes; reduced negative human impacts such as litter, vegetative trampling, and unplanned trails.

- Restrict recreational gold prospecting activities to gold panning and sluicing only in addition to the following;
- All mining and prospecting activity must be confined to within 25 ft of the current water level.
- Prohibit disturbance of the river bank vegetation.
- Prohibit dry sluicing.

Limit dispersed camping within the Decision Area; unless otherwise noted, to 14 days within a 90 day period. After the 14th day, campers must move beyond a 25-mile radius of their previous camp. In addition:

- Prohibit dispersed camping within 100ft of any fresh water source
- Prohibit dispersed camping within 300ft of any suitable or designated WSR categorized as wild or scenic.
- Prohibit dispersed camping within 100ft of any suitable or designated WSR categorized as recreational.

Limit parking for dispersed camping (including cars, trucks, recreation vehicles, and trailers ["fifth wheels"]) to one vehicle width from the edge of the designated route.

Limit Specialized Vehicle Recreation to those areas, trails, and routes designated for that purpose within the Decision Area. Through a Special Recreation Permit, this activity could be allowed on a case-by-case basis, pending the NEPA process on each application.

Identify and support the establishment of recreation gold prospecting and mining areas within the Decision Area. Recreational mining and prospecting (casual use as defined in 43 CFR 3809.5) would be restricted by the following and may be further restricted in specific areas:

- Prohibit explosives, mercury, and other hazardous chemicals;
- Prohibited motorized equipment, including pumps (except dredges), chainsaws, and mechanized earth-moving equipment (such as backhoes and bulldozers);
- Prohibit any removal of material (dirt) for recreational mining and prospecting from site;
- Require suction dredging activities to be in compliance with California Department of Fish and Game regulations, including holding a valid permit for operation;
- Prohibit pumping of water from water courses for any purpose;
- Prohibit high-banking, hydraulic mining, and ground sluicing;
- Restrict sluices, riffle boxes, and dry washers to collecting surfaces of no greater than six square feet;
- Prohibit disturbance to trees and shrubs; including their root areas, as a result of recreational mining and prospecting;
- Rectify any surface disturbance upon completion of activities;
- Prohibit recreational mining and prospecting on or within 30ft of the centerline of designated routes and trails; and
- Require any subsurface archaeological, historical, or paleontological remains discovered during mining to be left intact; all work in the area should stop, and BLM should be notified immediately; work may resume on clearance by the BLM.

Key Implementation Decisions

Establish Special Rules (Appendix N) to implement and enforce allocations, management restrictions, and decisions within the RMP.

2.2.16 INTERPRETATION AND ENVIRONMENTAL EDUCATION

Goal

Instill a public stewardship ethic of natural and cultural resources, and foster an appreciation of multiple-use public lands.

Establish an emotional connection to the landscape and its natural and cultural resources.

Objectives

Incorporate "Tread Lightly" and "Leave No Trace", into BLM interpretive and education programs and visitor information media.

Provide interpretive and educational opportunities to allow all visitors to explore public lands and learn about the natural and cultural environment and reduce their impacts on biological and cultural resources.

Educate public land users and affected communities on the role of wildland fire in ecosystems, its risk to public health and safety, and the safe use of fire in the recreational environment.

Decisions

Identify San Joaquin River Gorge, Piedras Blancas Light Station, and Keyesville Historic Mining District as important cultural and historic resources available for interpretation and educational programs.

Identify Atwell Island and Piedras Blancas Light Station as important biological resource areas available for interpretation and educational programs.

Identify wildland fire as important resource requiring interpretation and education programs.

Identify SRMAs as suitable locations to conduct and promote "Take It Outside" and "Hands on the Land" interpretive and education programs.

SPECIAL DESIGNATIONS

2.2.17 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Goals

Ancient Lakeshores ACEC: Protect and preserve important cultural resources, natural systems and processes, and habitat for listed species.

Bitter Creek ACEC: Provide suitable habitat for federally listed species

Blue Ridge ACEC: Provide suitable habitat for federally listed species.

Compensation Lands ACEC: Provide suitable habitat for listed species, and protection for various natural systems.

Erskine Creek ACEC: Provide suitable habitat for sensitive species and protection for various natural processes and geologic formations.

Hopper Mountain ACEC: Provide suitable habitat for federally listed species.

Kaweah ACEC: Provide suitable habitat for sensitive species and protection for various natural processes, geologic formations, and cultural resources.

Kettleman Hills ACEC: Provide suitable habitat for federal and state listed species and protection for natural systems and processes.

Lokern-Buena Vista ACEC: Provide suitable habitat for federal and state listed species and protection for natural systems and processes.

Los Osos ACEC: Protect and preserve important cultural resources, natural systems and processes, and habitat for listed species.

Piute Cypress ACEC: Provide suitable habitat for sensitive species and protection for natural systems.

Pt. Sal ACEC: Protect and preserve important cultural resources, natural systems and processes, and habitat for listed species.

Objectives

Ancient Lakeshores ACEC: Protect significant cultural resources from degradation. Maintain rare alkali sink plant communities and ensure no net loss of associated habitat for state and federally listed plants and animals.

Bitter Creek ACEC: Provide suitable foraging and roosting habitat for California condor in support of the California Condor Recovery Program and Bitter Creek National Wildlife Refuge.

Blue Ridge ACEC: Provide suitable roosting habitat for California condor.

Compensation Lands ACEC: Manage habitat for the benefit the species identified in the applicable USFWS or CDFG biological opinion, agreement, or other document associated with the acquisition.

Erskine Creek ACEC: Protect the limestone caves, riparian areas, manage habitat to support populations of Kern County larkspur and Piute Mountain jewelflower.

Hopper Mountain ACEC: Provide suitable roosting and nesting habitat for California condor in support of the California Condor Recovery Program.

Kaweah ACEC: Protect the Case Mountain giant sequoia groves, limestone caves and other karst features, riparian areas, and cultural resources. Manage habitat to support populations of California spotted owl, Pacific fisher, and Kaweah monkey flower.

Kettleman Hills ACEC: Protect significant paleontological resources and provide habitat for the suite of San Joaquin Valley listed species including ecologically functioning valley upland habitats.

Lokern-Buena Vista ACEC: Provide habitat for the suite of San Joaquin Valley listed species including ecologically functioning valley upland habitats.

Los Osos ACEC: Protect significant cultural resources from damage and degradation. Maintain rare and endemic plant communities including coastal dune scrub, central maritime chaparral, and pygmy oak forest. Ensure no net loss of associated habitat for special status plants and animals.

Piute Cypress ACEC: Ensure no net loss of Piute Cypress groves and associated habitat for special status plants.

Pt. Sal ACEC: Preserve significant cultural resources and maintain habitat for sensitive and listed species and unique plant species assemblages.

Decisions

Ancient Lakeshores ACEC: Recommend for designation 1,985 acres of public lands; within a boundary of 2,041 acres (encompassing the existing Alkali Sink and Goose Lake ACECs with the expansion to include the Sand Ridge portion of Atwell Island), as the Ancient Lakeshores ACEC (Map 2.7, 2.11, 2.16) administered with the following special management:

- Identify as open to fluid mineral leasing subject to major constraints (NSO);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects (i.e., those producing electricity for the national grid);
- Identify as unavailable for livestock grazing, except for the Sand Ridge unit which is identified as available for livestock grazing but only for the purpose of vegetation management to meet resource objectives other than the production of livestock forage;
- Prohibit campfires and overnight camping;
- Prohibit cross country equestrian travel; and
- Prohibit the discharge of firearms, except the legal taking of game species.

Blue Ridge ACEC: Recommend to continue the designation of 3,177 acres of public lands and 1,572 of federal mineral estate; within a boundary of 9,250 acres, as the Blue Ridge ACEC (Map 2.7, 2.11, 2.16) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects (i.e., those producing electricity for the national grid);
- Restrict public access through temporary emergency closure or in coordination with adjacent land managers, as needed for Condor protection; and
- Prohibit the discharge of firearms, except the legal taking of game species.

Erskine Creek ACEC: Recommend for designation 3,015 acres of public lands and 1,004 acres of federal mineral estate; within a boundary of 4,141 acres, as the Erskine Creek ACEC (Map 2.7, 2.11, 2.16) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects (i.e., those producing electricity for the national grid);
- Identify as unavailable for livestock grazing;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law approximately 320 acres in E ½, SE ¼, Section 8; E ,SW ¼, W ½, SE ¼, Section 15; and NE ¼, NW ¼, NW ¼, NE ¼, Section 22, T. 27, S., R. 33 E., MDB&M. If additional caves are discovered within the ACEC, these would also be recommended for proposal for withdrawal from appropriation and entry under the General Mining Law.

2.2.18 OUTSTANDING NATURAL AREAS

Goal

Protect, conserve, and enhance, for the benefit and enjoyment of present and future generations, the Piedras Blancas Light Station Outstanding Natural Area for its unique and nationally important historical, natural, cultural, scientific, educational, scenic, and recreational values.

Objective

Reconstruct, preserve and interpret the Piedras Blancas Light Station to during the period of its greatest historic significance (1875 and 1940), while providing for resource protection and managed use by the visiting public.

Provide support for international research of coastal ecosystems surrounding the Piedras Blancas Light Station.

Protect and coordinate the interpretation of the important archaeological sites with the affected Native American communities.

Coordinate and collaborate management of the Piedras Blancas Light Station with California Department of Parks and Recreation, San Luis Obispo County, local communities, and other interested entities.

Decisions

The following features and structures would be restored or reconstructed to provide an accurate representation of what Piedras Blancas looked like in its early years:

- Lighthouse
- Fog Signal Building
- Fuel/Oil House

- Tank Storage Building
- Fuel and Storage Building
- Laundry
- Watchroom
- Keeper's Triplex
- Head Keeper's Residence
- Barn
- Historic Landscape

Close, prohibit, or otherwise make unavailable the Piedras Blancas Light Station to the following:

- All forms of entry, appropriation, or disposal under the public land laws;
- Operation of the mineral leasing and geothermal leasing laws and the mineral materials laws;
- Livestock grazing;
- Public access except for BLM tours, permits, and other specific authorizations;
- Equestrian use;
- Discharge of firearms and hunting; and
- Authorization of commercial communications transmission equipment.

Continue the withdrawal of the Piedras Blancas Light Station ONA from location, entry, and patent under the public land mining laws beyond the legislatively provided 20-year withdrawal to extend for the life of this RMP.

Manage the Piedras Blancas Outstanding Natural Area as VRM Class I, in accordance with its special designation, with special consideration of the importance of the cultural modifications and to restoring the historic lighthouse and facilities. This VRM Class I is adjusted to consider these cultural artifacts as an important facet of the visual landscape and to allow for the maintenance, repair, and continued restoration to preserve the outstanding visual landscape of the area.

Provide access to Native Americans for traditional cultural and religious purposes. The site may be closed to the general public to protect the privacy of traditional cultural and religious activities in such areas by the Native American religious community.

Acquire water supply conveyance rights on a corridor between the Light Station boundary and a nearby spring or water source and acquire an appropriative water right from the State of California for all water use.

Acquire access rights on a corridor between the Light Station boundary and the nearest public road. Add and administer as part of the Outstanding Natural Area any additional lands or interest in lands next to the Outstanding Natural Area acquired by the United States.

2.2.19 BACK COUNTRY BYWAYS

Goal

Where appropriate and feasible, highlight the spectacular nature of the western landscapes through education and interpretation along linear travel routes which provide recreational driving opportunities that allow for the experiences of solitude and isolation.

Objectives

Provide an appropriate level of driving opportunity commensurate with route conditions.

2.2.20 NATIONAL TRAILS

Goal

Provide continued protection and support for national trails, to preserve, improve and restore the character for which they we designated.

Objectives

Coordinate and collaboration on the management of the PCNST to maintain its integrity, continue maintenance, and enforce allowable uses, while providing appropriate access and facilities for users and maintaining the scenic character and quality of the trail.

Provide for the ever-increasing outdoor recreation needs of an expanding population, promoting the preservation of, public access to, travel within, and enjoyment of the outdoor areas through the support of National Recreation Trails.

Decisions

Support and incorporate management of the PCNST Dove Springs and Cache Peak segments by the BLM Ridgecrest Field Office where the trail crosses into the Bakersfield Decision area.

Establish a 0.25-mile wide corridor along the PCNST (Owens Peak segment) to apply specific management incorporating and amended by the comprehensive PCNST Management Plan (Pacific Crest Trail Management Options Plan, BLM 1980), as follows:

- Close to fluid mineral and geothermal leasing;
- Close to the mineral material disposal;
- Designate as VRM Class I;
- Identify the corridor as a ROW exclusion area; and
- Identify the corridor as lands to be retained.

Continue designation and management of the Wu Ki' Oh Trail (formerly named the Squaw Leap Trail) as a National Recreation Trail.

2.2.21 WILD AND SCENIC RIVERS

Goal

River segments suitable for inclusion in the National Wild and Scenic Rivers System (NWSRS) would be free-flowing in nature, meet water quality standards, and continue to possess outstandingly remarkable values (ORVs) that make them eligible.

Objectives

Determine suitable river segments for inclusion in the National Wild and Scenic Rivers System (NWSRS). Manage those suitable river segments so to maintain their free-flowing nature, water quality, ORVs, and tentative classification, pending congressional action or for the duration of the RMP.

Decisions

Establish a corridor extending 0.25 miles from each edge suitable river segment, in which the following interim protective management guidelines would apply:

- Approve no actions altering the free-flowing nature of the suitable segment through impoundments, diversions, channeling, or riprapping;
- Approve no actions that would measurably diminish the stream segment's identified outstandingly remarkable value(s); and
- Approve no actions that would modify the setting or level of development of the suitable river segment to a degree that would change its identified classification.

2.2.22 WILDERNESS STUDY AREAS

Goal

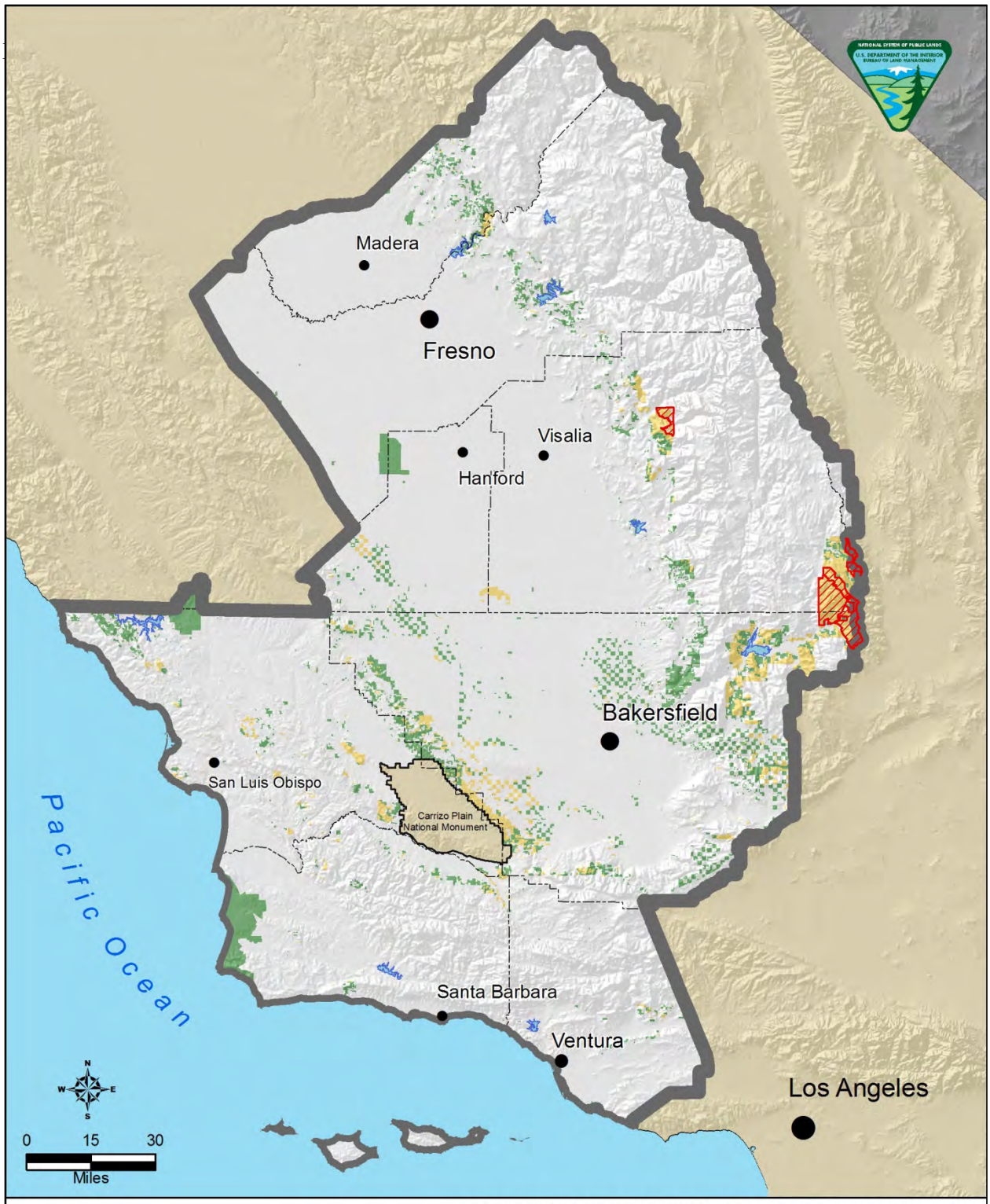
WSAs would continue to be suitable for future designation as wilderness until such time that congress either designates as wilderness or releases the area.

Objective

Manage WSAs in a manner that does not impair the suitability of the area for the future designation as wilderness until such time that Congress releases them from study status.

Decision

Manage WSAs in accordance with BLM Interim Management Policy for Lands under Wilderness Review (IMP) (BLM Handbook H-8550-1 [BLM 1995])



Legend

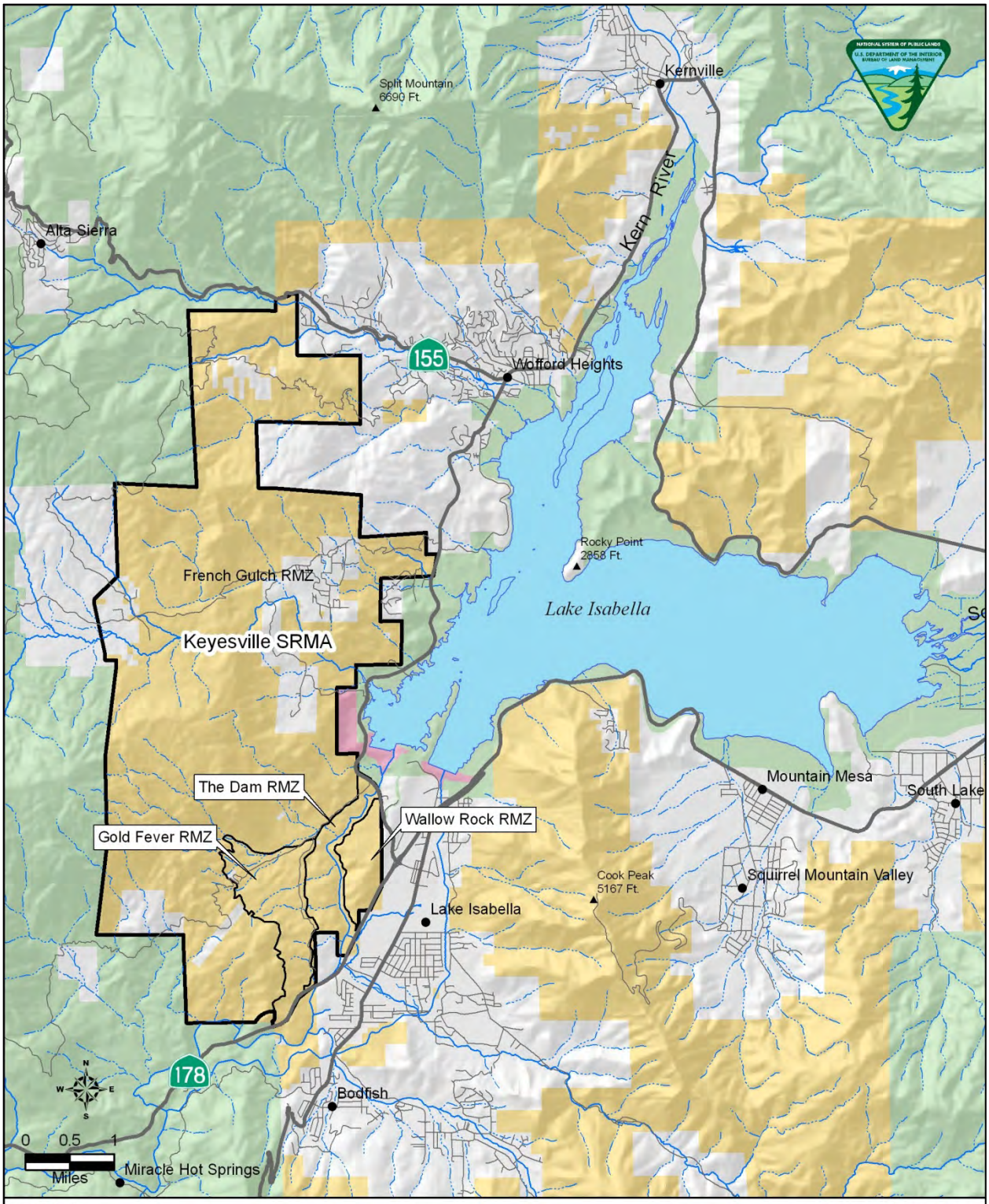
- Bakersfield Field Office
- County Boundary
- Areas Suitable for Managing Fire For Resource Benefit

Decision Area

- Public Lands
- Federal Mineral Estate

Areas Suitable for Managing Fire For Resource Benefit
Alternatives B, C, D, E
Bakersfield Field Office

Map 2.1



Legend

Recreation Management Zones

Landstatus

Bureau of Land Management

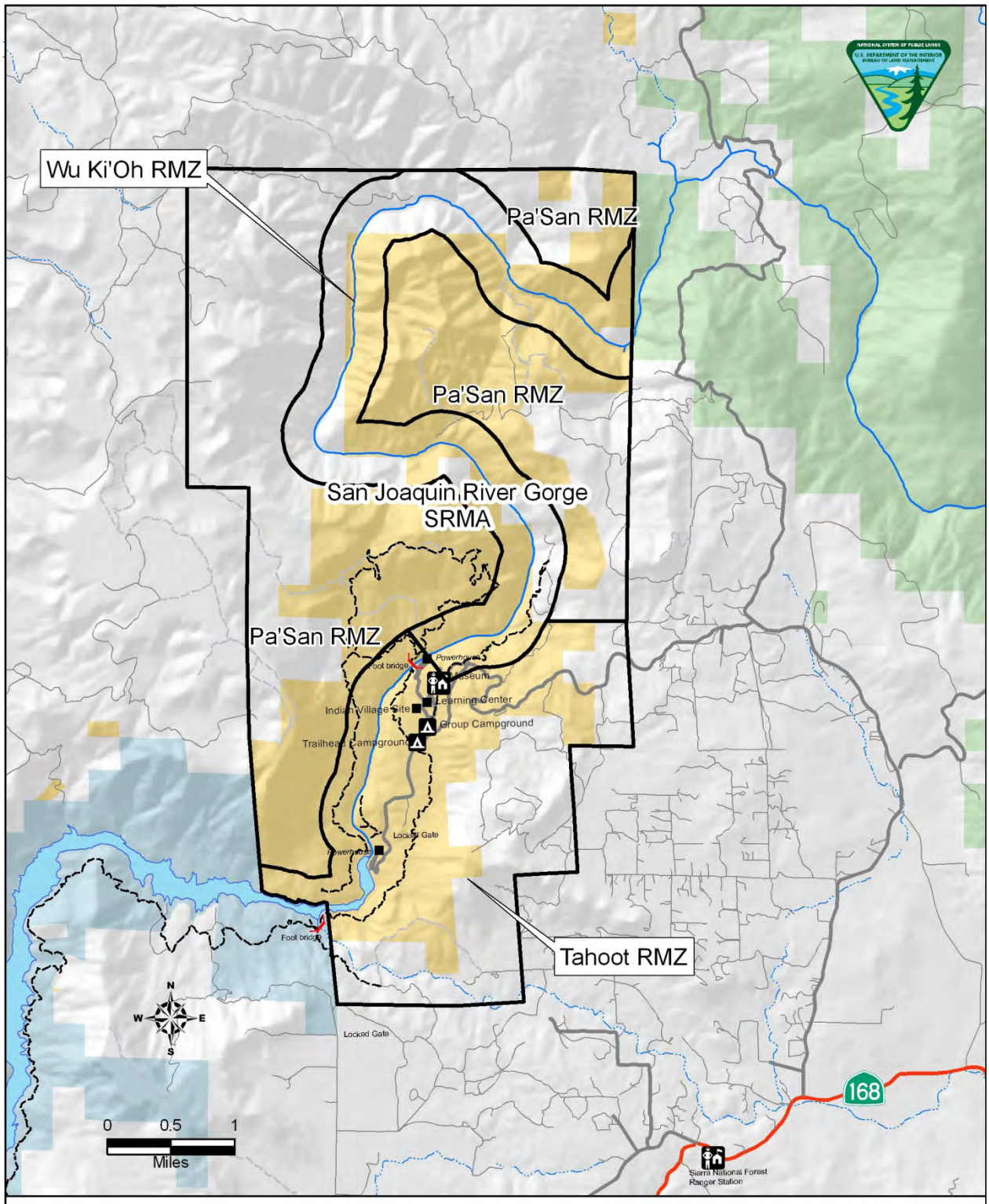
US Forest Service

Military

Private, Unclassified

Keyesville SRMA
Bureau of Land Management
Bakersfield Field Office

Map 2.2



Legend

Bakersfield Field Office

County Boundary

Recreation Management Zones

Landstatus

Bureau of Land Management

US Forest Service

Millerton Lake State Rec. Area

Private / Other

San Joaquin River Gorge SRMA
Bureau of Land Management
Bakersfield Field Office

Map 2.3

2.3 ALTERNATIVE B

The following section describes management that would be established under Alternative B, presented by program area. Where program management is the same across all action alternatives, it is presented above under *Management Common to All Action Alternatives*. Total management decisions for each program are inclusive of the decisions in both the common to all and this section.

The goals for each resource are common to all and, therefore, are presented in that section above. Some objectives do vary within the individual alternatives those that do are described below under the *Objective* headings.

RESOURCES

2.3.1 BIOLOGICAL RESOURCES

Decisions

Prohibit the release of un-retrieved nonnative animals, except for the use of approved biocontrol agents, authorized livestock, and the augmentation of naturalized species in accordance with a CDFG permit or plan.

Allow removal of dead and downed woody materials from public lands only with administrative approval. Collection of fire wood from dead and down woody material for on-site campfires is permissible provided woody material is less than four inches in diameter.

Identify split estate with surface managed as compensation for biological resources as open to fluid mineral leasing subject to major constraint (CSU – Compensation Lands).

Identify the Compensation Lands ACEC as open to fluid mineral leasing subject to major constraints (NSO – Compensation Lands ACEC), if consistent with the USFWS, CDFG, or other compensation document or agreement.

Identify public lands with mineral estate adjacent to or within the boundary of the Chimineas unit of the Carrizo Plain Ecological Reserve as open to fluid mineral leasing subject to major constraint (CSU-Chimineas Ranch).

Identify split estate with federal mineral estate within the boundary of the Chimineas unit of the Carrizo Plain Ecological Reserve as open to fluid mineral leasing subject to major constraint (CSU-Existing Surface Use/Management).

Recommend proposal for withdrawal from appropriation and entry under the General Mining Law federal mineral estate underlying compensation lands regardless of surface ownership.

Identify the following areas as areas of ecological importance with specific management, as appropriate:

Conserved Lands: for protection and recovery of federally listed species on public lands identified as reserves or corridors by the USFWS and CDFG (see *A Conservation Strategy for Threatened and Endangered Species in the San Joaquin Valley* in Appendix B).

- Manage public lands within reserves or corridors as conserved land consistent with the direction established by the USFWS and CDFG through the Recovery Plan for Upland Species of the San Joaquin Valley and other pertinent recovery of conservation plans and the Kern Valley Floor HCP and other pertinent HCPs.
- Manage reserves to restrict surface disturbance on public lands in reserves to not exceed 10 percent of any 640-acre section, aliquot section, or aggregate of adjacent aliquot sections.
- Manage corridors to restrict surface disturbance on public lands in corridors to not exceed 25 percent of any 640-acre section, aliquot section, or aggregate of adjacent aliquot sections.
- Allow certain areas of high intensity oil and gas development within reserves and corridors to be identified and managed separately from the reserve and corridor system. These areas will not be subject to the 10 percent and 25 percent surface disturbance limit.
- Include certain areas outside the reserve and corridor system to be managed as corridors including the application of corridor disturbance restrictions.

Irish Hills: for protection of diverse coastal plant communities, including Bishop pine forest, rare plant habitat, and notably large oaks and manzanita.

- Identify as open to fluid mineral leasing, subject to moderate constraints (CSU – Priority Species, Plant Communities and Habitats stipulation);
- Identify as unavailable for livestock grazing;
- Prohibit campfires;
- Prohibit overnight camping, except in any future developed recreation sites developed in partnership with adjacent land owners;
- Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting;
- Prohibit cross country equestrian travel; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Rusty Peak: for protection of serpentine chaparral, coastal live oak woodland, perennial grassland, San Luis serpentine dudleya, and other sensitive plant species.

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU-Priority Species, Plant Communities and Habitats stipulation);
- Identify as unavailable for livestock grazing; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Salinas River: for protection of diverse vegetation communities and the exemplary riparian area.

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU-Priority Species, Plant Communities and Habitats stipulations);
- Recommend proposal of the riparian zone (approximately 10 acres) for withdrawal from appropriation and entry under the General Mining Law;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;
- Prohibit cross country equestrian travel; and
- Prohibit the discharge of firearms, except the legal taking of game species.

Recommend the following areas as Areas of Critical Environmental Concern (ACECs) based on their significant biological resource values; Cypress Mountain ACEC; Cyrus Canyon ACEC; Tierra Redonda ACEC; and Upper Cuyama Valley ACEC.

2.3.2 CAVES AND KARST RESOURCES

Decisions

Designate Granite Cave as a significant cave, based on its important and significant cave resources, which include both cultural and biotic resources, that are within and dependent on the cave. This cave will be managed as Class III to fully protect the cultural integrity of the area and its associated cave resources.

Designate Millerton Cave as a significant cave, based on its important and significant cave resources, including geological formations, resources of known cultural importance, biotic resources, and the potential for resource-based recreation. This cave will be managed as Class I to allow occasional recreational use; but it shall not be interpreted or otherwise advertised, other than through general area/geological interpretation.

All caves within ACECs whose importance and significance speaks directly to the protection of known or potential cave and karst resources shall be determined significant, in accordance with 43 CFR 37.11(e). The ACECs whose designation relates to cave and karst resources are Erskine Creek and Kaweah. Further investigation and study of these cave and karst resources may be required to assign management objectives and prescriptions. Interim management shall be as Class II to protect cave resources.

2.3.3 LANDS WITH WILDERNESS CHARACTERISTICS

Decisions

Manage the following areas (3,470 acres as shown on Map 2.8) for the protection of wilderness characteristics: Bear Mountain, Big Pine Meadow, Chappell D Parcel, Edgar Ranch West, Lamont Meadow Parcels, and Roszewska Property.

Establish prescriptive management for the protection of wilderness characteristics as follows:

- Recommend proposal for withdrawal from mineral entry;
- Identify as closed to mineral leasing;
- Identify as closed to mineral material sales;
- Identify as Rights-of Way avoidance areas;
- Designate as OHV Closed area;
- Designate as VRM Class II, unless a more stringent overlapping designation (e.g., WSR or PCNST Corridor) exists.
- Livestock grazing and the activities and facilities that support a grazing program may be permitted to continue at the same level and degree after initial authorization;
- Prohibit new structures unrelated to preserving wilderness characteristics; and
- Retain in Federal ownership.

2.3.4 VISUAL RESOURCES

Decisions

Designate VRM classes for the Decision area as shown on Map 2.4 and summarized by the following;

- Class I: 144,730 acres
- Class II: 207,790 acres
- Class III: 525,860 acres
- Class IV: 271,380 acres

RESOURCE USES

2.3.5 COMPREHENSIVE TRAIL AND TRAVEL MANAGEMENT

Decisions

Designate in accordance with 43 CFR 8342 as defined in 43 CFR 8340.05(f), (g), and (h) the following OHV areas:

- Open: 0 acres
- Closed: 142,940 acres
- Limited: 261,140 acres

Key Implementation Decisions

Designate roads and/or trails as identified on Travel Management Network MapsB1-B9, summarized by the following mileages:

- Motorized: 770 miles

- Non-motorized: 31 miles
- Non-mechanized: 45 miles
- Authorized: 783 miles
- Closed: 308 miles

2.3.6 LANDS AND REALTY

Land Tenure

Decisions

Determine the public lands (61,440 acres) and federal mineral estate (337,440 acres) shown on Map LR-B (Appendix O) as available for consideration of a disposal action (sale, exchange, or other means) in so much that these lands meet the "isolated, difficult or expensive to manage, or are needed for community expansion" disposal criteria contained in FLPMA Section 203(a). However, site-specific investigation to ascertain whether a specific parcel meets the disposal criteria outlined in this RMP would still be required prior to any disposal action being taken.

Land Use Authorizations

Decisions

Identify all ACECs and the Piedras Blancas ONA as Right-of-way avoidance areas, except for rights-of-way related to utility scale renewable energy projects.

Identify the Piedras Blancas ONA, SRMAs, and VRM Class I and II areas as exclusion areas for utility scale renewable energy Rights-of-way.

Identify lands with wilderness characteristics and suitable Wild and Scenic River Corridors as Rights-of-way avoidance areas.

Withdrawals

Decisions

Recommend proposal for withdrawal all or certain types of mining operations under the mining laws 29,050 acres, in 19 areas.

2.3.7 LIVESTOCK GRAZING

Objectives

Provide for livestock grazing opportunities on lands in the grazing decision area in a manner that limits impacts on other resources and meets RMP goals.

Decisions

Allocate 328,700 acres of public land as available for livestock grazing; of which 7,800 acres (Atwell Island) would be available only for the purpose of vegetation management objectives other than producing livestock forage. Allocate the remaining 66,200 acres as unavailable for livestock grazing,

including the Deer Spring, Frog Pond, South Fork of the Kern River, Irish Hills, Rusty Peak and the Salinas River areas of ecological importance and Big Pine Meadow and Rosewska Meadow (Map LG-B, in separate map packet).

Allocate newly acquired lands to match allocations given to the surrounding or adjacent lands, except where land is unsuitable for livestock grazing or the purpose for which the land was acquired is incompatible with livestock grazing including restrictions placed on future use through acquisition documents.

Apply the appropriate Bakersfield FO-specific livestock grazing management guidelines (Appendix F-2) to the applicable grazing authorizations within the grazing decision area as follows:

For Allotments within San Joaquin Valley listed species habitat;

- Mulch Readiness at 500 lbs/acre and 2" green growth, or 700 lbs/acre without green growth
- Mulch Threshold at 500 lbs/acre
- with Saltbush Scrub; Dec.1-May 31 season of use or meet form class, foliage density, and reproductive uniformity criteria

For Riparian areas in;

- Poor-Fair Condition; Nov.1-May 31 season of use and apply the Central CA Guidelines for Livestock Grazing Management
- Good-Excellent Condition - Maintain current season of use and apply the Central CA Guidelines for Livestock Grazing Management as needed.

For known occupied habitats and/or known populations of;

- California jewelflower - No grazing unless in approved study or research show grazing to be beneficial.
- San Joaquin woolly threads - Apply the Central CA Guidelines for Livestock Grazing Management.
- Kern mallow - No grazing unless in approved study or research shows grazing to be beneficial.
- Hoover's woolly Star - Apply the Central CA Guidelines for Livestock Grazing Management.
- Kelso Creek monkeyflower - No grazing.
- Kern primrose sphinx moth - No grazing.
- Tehachapi slender salamander - Apply the Central CA Guidelines for Livestock Grazing Management.
- Other species that become listed - Prescription that takes into account specific species requirements.

Key Implementation Decisions

Authorize livestock grazing at the initial implementation levels (Appendix F-5). Based on existing authorizations, projected new authorizations and application of the central California and Bakersfield FO Specific livestock grazing management guidelines, forage authorized for livestock grazing within the Decision Area would total approximately 40,000 AUMs.

2.3.8 MINERALS MANAGEMENT

Leasable Minerals

Decisions

Establish the major constraint of "NSO – Compensation Lands ACEC" that prohibits surface disturbance on the entire lease for the purpose of minimizing or eliminating adverse effects associated with fluid mineral development on lands acquired as compensation lands with the following stipulation language:

> *All or a portion of this lease occurs within the boundaries of the Compensation Lands ACEC. These lands may have a governing document that prohibits certain activities. No new surface disturbing activity is allowed on the lease. Furthermore, access to federal minerals within the lease will only be allowed from off-site sources not considered to be compensation lands (e.g., compensation land in private ownership). This stipulation shall not be waived, however may be granted exception or modified as follows:*
>
> ***Exception:*** *The Authorized Officer may grant an exception if, after coordination with appropriate agency (e.g., CDFG and USFWS), an environmental review determines the action as proposed or conditioned would not impair the values present and is consistent with the document that established the compensation land.*
>
> ***Modification:*** *The Authorized Officer may modify this stipulation to allow surface use on a portion or the entire lease if, after coordination with appropriate agency (e.g., CDFG and USFWS), an environmental review determines the action as proposed or conditioned would not impair the values present and is consistent with the document that established the compensation land.*

Establish the major constraint of "CSU – Compensation Lands" for the purpose of minimizing or eliminating adverse effects associated with fluid mineral development on lands managed as compensation land with the following stipulation language:

> *All or a portion of this lease underlies lands managed as compensation land by the BLM or an entity other than the BLM that may have a governing document that prohibits certain activities. To allow only a compatible amount of disturbance to unique or significant biological values, no more than ten (10) percent of the surface within any parcel may be disturbed on the surface reserve lands overlaying the lease. Furthermore, access to federal minerals within the lease will not disturb more than ten (10) percent of the surface within any parcel from off-site sources that are compensation lands (e.g., compensation land in private ownership). This stipulation may be granted exception, modified, or waived as follows:*

Exception: *The Authorized Officer may grant an exception if, after coordination with appropriate agency (e.g., CDFG and USFWS), an environmental review determines the action as proposed or conditioned would not impair the values present and is consistent with the document that established the compensation land.*

Modification: *The Authorized Officer may modify this stipulation if, after coordination with appropriate agency (e.g., CDFG and USFWS), an environmental review determines the action as proposed or conditioned would not impair the values present and is consistent with the document that established the compensation land.*

Waiver: *The Authorized Officer may grant a waiver to the stipulation if the lease parcel no longer considered as compensation land by the appropriate agency (e.g., CDFG and USFWS).*

Establish the major constraint of "CSU – Chimineas Ranch" for the purpose of preventing or reducing disturbance to unique or significant natural resources from fluid mineral development with the following stipulation language:

This lease is within the boundaries of, or adjacent to, the State of California's Chimineas Ranch Ecological Reserve, an area that contains unique or significant natural or cultural values. Prior to the authorization of any surface disturbing activities, a preliminary environmental review will be conducted to identify the potential presence of natural or cultural values. Authorizations may be delayed until completion of the necessary surveys during the appropriate time period for these resources. Surface disturbing activities may be prohibited on portions or the entire lease, and some activities may be prohibited during seasonal time periods. This stipulation shall not be waived, however may be granted exception or modified as follows:

Exception: *The Authorized Officer may grant an exception if, after coordination with CDFG, an environmental review determines that the activity, as proposed or conditioned, would not impair the values present and is consistent with the management of the ecological reserve.*

Modification: *The Authorized Officer may modify this stipulation to further restrict surface use on a portion of or the entire lease if a more stringent requirement is deemed necessary to protect resource values following an environmental review.*

Identify approximately 999,950 acres as open to fluid mineral leasing, subject to major constraints (both CSU – Protected Species and CSU – Sensitive Species). Of this at least 3,880 acres would also be subject to a No Surface Occupancy stipulation. Additional CSU stipulations may be applied to all new leases in conjunction with the lease sale as determined appropriate and in conformance with the RMP.

Identify 13,060 acres as closed to fluid mineral leasing;

- Discretionary closures –Bitter Creek ACEC, lands with wilderness characteristics and suitable segments of WSR.

Solid (Non-Energy) Leasables

Decisions

Identify 818,330 acres as open to solid (non-energy) mineral leasing and development.

Locatable Minerals

Decisions

Determine and designate the following areas as unsuitable for Notice and Plan of Operation levels mining operations: Granite Cave and The Dam, Wallow Rock, and Gold Fever RMZs. Segregate these areas and recommend proposal for their withdrawal from location under the General Mining Law and condition mineral entry to permit only Casual Use operations (43 CFR 3809.5).

Salable Minerals

Decisions

Identify 818,090 acres as open to mineral material disposal.

2.3.9 RECREATION AND VISITOR SERVICES

Decisions

Identify 191,520 acres as lands not designated within a Recreation Management Area. Close 10,965 of these acres (Map 3.30) to public access located within producing oilfields, with well densities averaging higher than 20 wells per 40 acres (or 0.5 wells per acre).

Designate 123,450 acres (Map 2.5) as the Chimney Peak Extensive Recreation Management Area with the following recreation objective, management actions and allowable use decisions;

> Throughout the life of the RMP the Chimney Peak Extensive Recreation Management Area will offer recreation opportunities, in an unchanged backcountry/primitive physical recreation setting, that facilitate the visitors' freedom to participate in primitive unconfined recreation types through easy access to designated Wilderness including camping grounds, trailheads and trails.
>
> - Maintain and improve designated camping areas at Chimney Creek, Long-Valley and Walker Pass.
> - Establish *standard amenity* fees for overnight camping at designated camping areas.

Designate 160 acres (T 7 S, R 20 E, Section 2) as the Fresno River Extensive Recreation Management Area with the following recreation objective, management actions and allowable use decisions;

> Within the life of the RMP the Fresno River ERMA will offer limited recreation opportunities in a rural setting, facilitating various interpretative and educational opportunities.
>
> - Prohibit overnight camping.
> - Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting.

- Require an authorization or mining notice for casual use prospecting activity, other than gold panning.

Designate 23,750 acres (Maps 2.5-2.6) as the Temblor Special Recreation Management Area, established with a "community" market strategy (Appendix H) for local communities (Taft), nearby rural areas and the population center of Bakersfield. The SRMA is subdivided into two Recreational Management Zones, each with the following recreation objectives, management actions and allowable use decisions (Appendix H contains a complete description of each RMZs targeted activities, experiences, benefits, and Natural Resource Recreation Settings);

Temblor North RMZ: In visitor assessments, 50% of respondents who participated in targeted activities report the ability to realize the targeted experiences and benefits.

Targeted Activities: OHV trail riding; hunting; target shooting

Targeted Experiences: Developing skills and abilities; testing personal endurance; enjoying risk-taking adventure; savoring the total sensory experience of a natural landscape; escaping everyday responsibilities for awhile

Targeted Benefits: *Personal:* Greater self-reliance; improved skills for outdoor enjoyment; Closer relationship with the natural world. *Community:* Providing a place near but outside the community to recreate; removing unwanted use from industrial areas; addressing health and safety concerns. *Economic:* Improved local economic stability; maintenance of community's distinctive recreation tourism market. *Environmental:* Increased awareness and protection of natural landscapes; reduced negative human impacts such as litter, vegetative trampling, and unplanned trails.

- Develop high quality trail system, including maintenance of many existing trail, creating additional recreation trails and closure of inappropriate routes in partnership with user groups and adjacent land owners.
- Limit commercial Special Recreation Permits available within the SRMA to no more than three (3) active permits. Special Recreation Permits for competitive events would not be issued.
- Establish appropriate "Special Area" fees for OHV activity within the SRMA.

Urban Interface RMZ: In visitor assessments, 65% of respondents who participated in targeted activities report the ability to realize the targeted experiences and benefits.

Targeted Activities: OHV trail riding; driving for pleasure; dispersed camping

Targeted Experiences: Developing skills and abilities; testing personal endurance; enjoying risk-taking adventure; savoring the total sensory experience of a natural landscape; escaping everyday responsibilities for awhile

Targeted Benefits: *Personal:* Greater self-reliance; improved skills for outdoor enjoyment; closer relationship with the natural world. *Community:* Providing a place near but outside the

community to recreate; removing unwanted use from industrial areas; addressing health and safety concerns. *Economic:* Improved local economic stability; maintenance of community's distinctive recreation tourism market. *Environmental:* Increased awareness and protection of natural landscapes; reduced negative human impacts such as litter, vegetative trampling, and unplanned trails.

- Acquire legal public access from the community of Taft.
- Establish parking/staging area in cooperation with adjacent land owners.
- Develop high quality trail system, including maintenance of many existing trails, creating additional recreation trails and closure of inappropriate routes in partnership with user groups and adjacent land owners.
- Limit commercial Special Recreation Permits available within the SRMA to no more than three (3) active permits. Special Recreation Permits for competitive events would not be issued.
- Establish appropriate "Special Area" fees for OHV activity within the SRMA.

SPECIAL DESIGNATIONS

2.3.10 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Goal

Cypress Mountain ACEC: Protect and preserve natural systems and processes.

Cyrus Canyon ACEC: Provide suitable habitat for sensitive species and protection for natural systems.

Horse Canyon ACEC: Protect cultural resources, and various natural processes.

Tierra Redonda ACEC: Protect geologic formations, and various natural processes.

Upper Cuyama Valley ACEC: Provide suitable habitat for sensitive and listed species and protection for natural systems.

Objectives

Cypress Mountain ACEC: Preserve unique plant communities of serpentine chaparral and northern interior cypress forest dominated by Sargent cypress.

Cyrus Canyon ACEC: Protect sensitive biological resources including Kelso Creek monkeyflower and riparian values.

Horse Canyon ACEC: Protect significant cultural sites, including traditional cultural properties associated with Native American values and important paleontological resources.

Tierra Redonda ACEC: Preserve significant paleontological resources, unique sand dune formation and coast live oak woodland.

Upper Cuyama Valley ACEC: Protect habitat for blunt-nosed leopard lizard and its hybrid zone, Kern primrose sphinx moth, and California jewelflower. Maintain the link between the Sierra Madre and the San Emigdio Mountains.

Decisions

Bitter Creek ACEC: Recommend for designation 1,026 acres of public lands and 5,095 acres of federal mineral estate; within a boundary of 20,914 acres, as the Bitter Creek ACEC (Map 2.7) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects (i.e., those producing electricity for the national grid);
- Prohibit public access to lands adjacent to USFWS surface (434 acres);
- Prohibit campfires and overnight camping; and
- Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting.

Compensation Lands ACEC: Recommend for designation 283 acres of public lands and any future parcels of compensation land as the Compensation Lands ACEC (Map 2.7) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (NSO);
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Manage all existing and future parcels of compensation land (including lands not specifically labeled as "compensation" within the parcel) as part of the Compensation Lands ACEC;
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law if necessary, otherwise lands and minerals would remain unopened to entry under the mining laws;
- Prohibit campfires and overnight camping;
- Prohibit cross country equestrian travel in areas that are not grazed by livestock;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Require all pets to be leashed (maximum eight-foot length) at all times. Require removal of pet fecal matter by owners or handlers.

Cypress Mountain ACEC: Recommend to continue the designation of 1,080 acres of public lands; within a boundary of 3,035 acres, as the Cypress Mountain ACEC (Map 2.7) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU- Priority Species, Plant Communities and Habitats stipulations);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;

- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;
- Prohibit cross county equestrian travel;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Cyrus Canyon ACEC: Recommend for designation 5,373 acres of public lands and 1 acre of federal mineral estate; within a boundary of 5,374 acres, as the Cyrus Canyon ACEC (Map 2.7) administered with the following special management:

- Identify as closed to mineral materials disposals, except for administrative purposes;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;
- Prohibit equestrian use;
- Prohibit the discharge of firearms, except the legal taking of game species;
- Prohibit the casual collection of plants or their parts without BLM authorization; and
- No new apiary permits will be authorized. The existing apiary permit may be renewed but not transferred. The existing apiary site will be retired when the current holder does not renew the permit.

Hopper Mountain ACEC: Recommend for designation 2,027 acres of public lands and 2,947 acres of federal mineral estate; within a boundary of 4,978 acres, as the Hopper Mountain ACEC (Map 2.7) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (CSU-Protected Species and CSU-Raptor stipulations)
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify portions as unavailable for livestock grazing;
- Restrict public access through temporary emergency closure or in coordination with adjacent land managers, as needed for Condor protection;
- Implement Best Management Practices to minimize impacts on condors from public use and oil field activities;
- Prohibit campfires and overnight camping; and

- Prohibit the discharge of firearms, except the legal taking of game species.

Horse Canyon ACEC: Recommend to continue the designation of 1,491 acres of public lands and 1,339 acres of federal mineral estate; within a boundary of 6,897 acres, as the Horse Canyon ACEC (Map 2.7) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (NSO);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Prohibit rock hounding, including the casual collection of fossils, mineral agates, and semi-precious stones.

Kaweah ACEC: Recommend for designation 26,891 acres of public lands and 150 acres of federal mineral estate; within a boundary of 33,559 acres (expanding the existing Case Mountain ACEC), as the Kaweah ACEC (Map 2.7) administered with the following special management:

- Identify as open for leasing oil and gas resources, subject to moderate constraints (CSU-Raptor stipulations);
- Identify as closed to geothermal leasing;
- Recommend proposal of cave and karst resources and the giant sequoia groves for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify the giant sequoia groves as unavailable for livestock grazing;
- Restrict public access seasonally (closed from May 1 to September 30) to recreation sites along the North Fork of the Kaweah River.
- Prohibit the discharge of firearms, except the legal taking of game species;
- Prohibit the casual collection of plants or their parts without BLM authorization; and
- Protect the giant sequoia groves and mixed conifer forest through implementation of fuels reduction techniques including prescribed burning and vegetation thinning, and removal of ladder fuels.

Kettleman Hills ACEC: Recommend to continue the designation of 6,726 acres of public lands and 6,969 acres of federal mineral estate; within a boundary of 28,874 acres (expanding the existing 9,794-acre ACEC), as the Kettleman Hills ACEC (Map 2.7) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (CSU-Protected Species, CSU-Sensitive Species, and CSU-Raptor stipulations);
- Identify as closed to mineral materials disposals, except for administrative purposes;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects; and
- Prohibit campfires.

Lokern-Buena Vista ACEC: Recommend to continue the designation of 11,352 acres of public lands and 4,113 acres of federal mineral estate; within a boundary of 69,474 acres (combining the existing Lokern ACEC with the expansion to include the Buena Vista Hills and Valley), as the Lokern-Buena Vista ACEC (Map 2.7) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (CSU-Protected Species and CSU-Sensitive Species stipulations;
- Identify as closed to mineral materials disposals, except for administrative purposes);
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects; and
- Prohibit campfires.

Los Osos ACEC: Recommend for designation 5 acres of public lands; within a boundary of 32 acres, as the Los Osos ACEC (Map 2.7) administered with the following special management:

- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;
- Designate as OHV Closed area;
- Prohibit mechanized use, equestrian use, and cross-country travel by pedestrians;
- Require all pets to be leashed (maximum eight-foot length) at all times. Require removal of pet fecal matter by owners or handlers.
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Piute Cypress ACEC: Recommend to continue the designation of 2,305 acres of public lands and 212 acres of federal mineral estate; within a boundary of 2,544 acres (expanding the existing 1,104-acre ACEC), as the Piute Cypress ACEC (Map 2.7) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Identify as closed to mineral materials disposals, except for administrative purposes;

- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Protect Piute cypress communities from livestock grazing if deemed necessary through appropriate studies;
- Prohibit campfires; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Pt. Sal ACEC: Recommend to continue the designation of 77 acres of public lands; within a boundary of 77 acres, as the Pt. Sal ACEC (Map 2.7) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;
- Prohibit all cross-country travel;
- Designate as OHV Closed area;
- Prohibit mechanized and equestrian use;
- Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Tierra Redonda ACEC: Recommend to continue the designation of 331 acres of public lands and 81 acres of federal mineral estate; within a boundary of 1,311 acres, as the Tierra Redonda ACEC (Map 2.7) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (NSO);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;
- Prohibit cross country equestrian travel;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Upper Cuyama Valley ACEC: Recommend for designation 6,351 acres of public lands and 2,584 acres of federal mineral estate; within a boundary of 15,247 acres, as the Upper Cuyama Valley ACEC (Map 2.7) administered with the following special management:

- Identify as open for fluid mineral leasing subject to major constraints (CSU-Protected Species and CSU-Sensitive Species) stipulations;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing habitat containing California jewelflower or Kern primrose sphinx moth;
- Prohibit equestrian use in habitat containing California jewelflower or Kern primrose sphinx moth;
- Prohibit cross country equestrian travel outside of livestock grazing allotments; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

2.3.11 BACK COUNTRY BYWAYS

Decision

Revoke the Back Country Byway designation of Canebrake and Long Valley Loop Roads as the Chimney Peak Back Country Byway.

2.3.12 NATIONAL TRAILS

Decision

Recommend for designation the San Joaquin River Trail as a National Recreation Trail in coordination with other affected entities.

2.3.13 WILD AND SCENIC RIVERS

Decision

Determine as suitable and recommended for congressional designation in the NWSRS for the classifications identified the North Fork of the Kaweah (Scenic/Recreational) and San Joaquin River Segment 1 (Wild/Scenic).

2.3.14 WILDERNESS STUDY AREAS

Objective

If released by Congress from study status, maintain wilderness character, where present, within WSAs.

Decisions

Manage for wilderness characteristics the following WSAs if released from study status by Congress, unless congressional release language provides other specific management guidance;

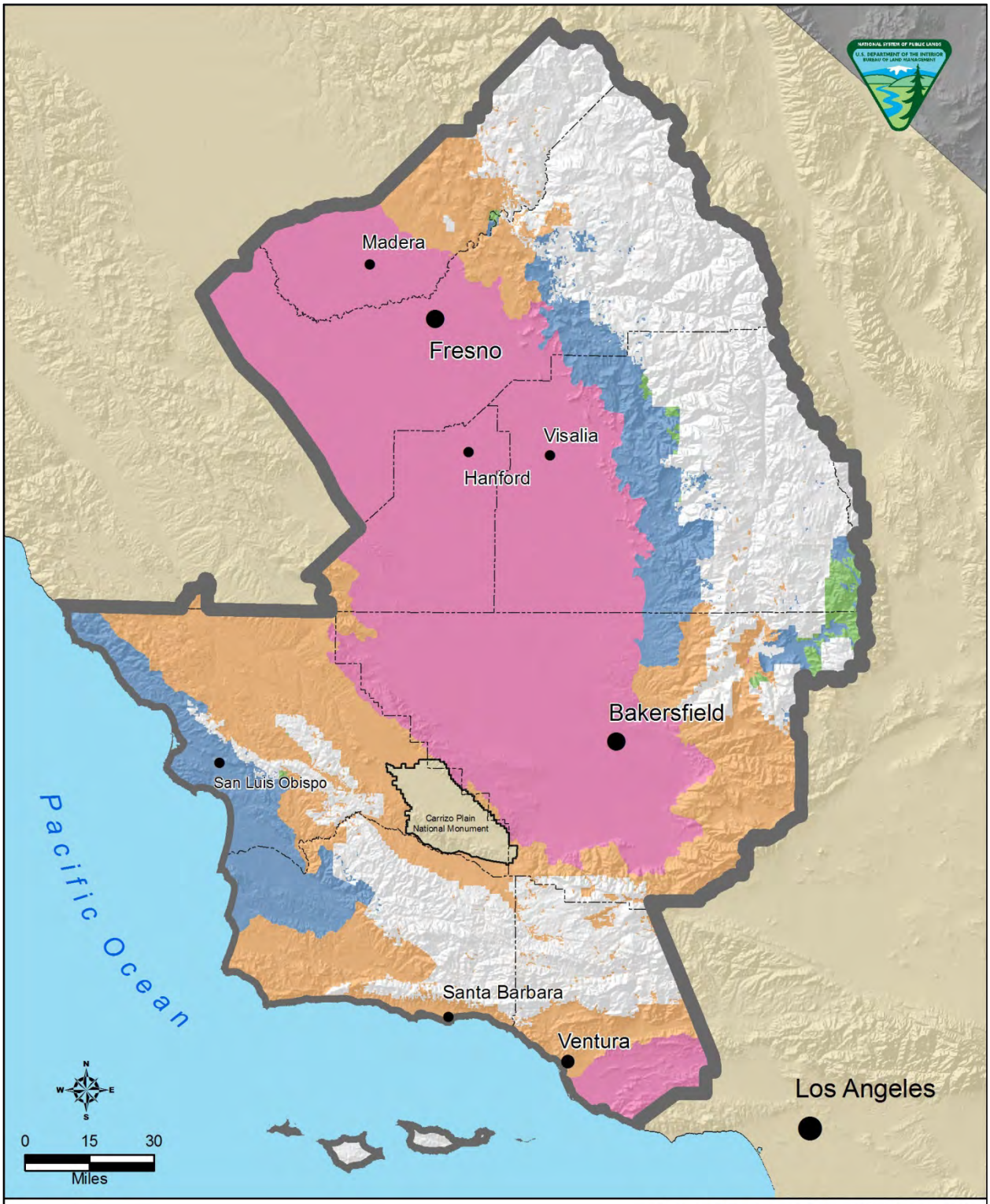
- Machesna WSA (adjacent to USFS Machesna Mountain Wilderness);

- Owens Peak WSA;
- Rockhouse WSA;
- Sacatar Meadows WSA;
- Scodie WSA; and
- Garcia Mountain WSA (adjacent to USFS Garcia Mountain Wilderness).

Manage the Milk Ranch/Case Mountain WSA and Sheep Ridge WSA if released from study status by Congress, in accordance with the Kaweah ACEC, unless congressional release language provides other specific management guidance

Manage portions of the Piute Cypress WSA in accordance with both the Erskine Creek ACEC and Piute Cypress ACEC if released from study status by Congress, unless congressional release language provides other specific management guidance. The portion not within either ACEC would be managed as multiple-use dispersed public lands.

Manage the Black Mountain WSA and Moses WSA multiple-use dispersed public lands.



Legend

Bakersfield Field Office

County Boundary

Visual Resource Management (VRM)

Class I

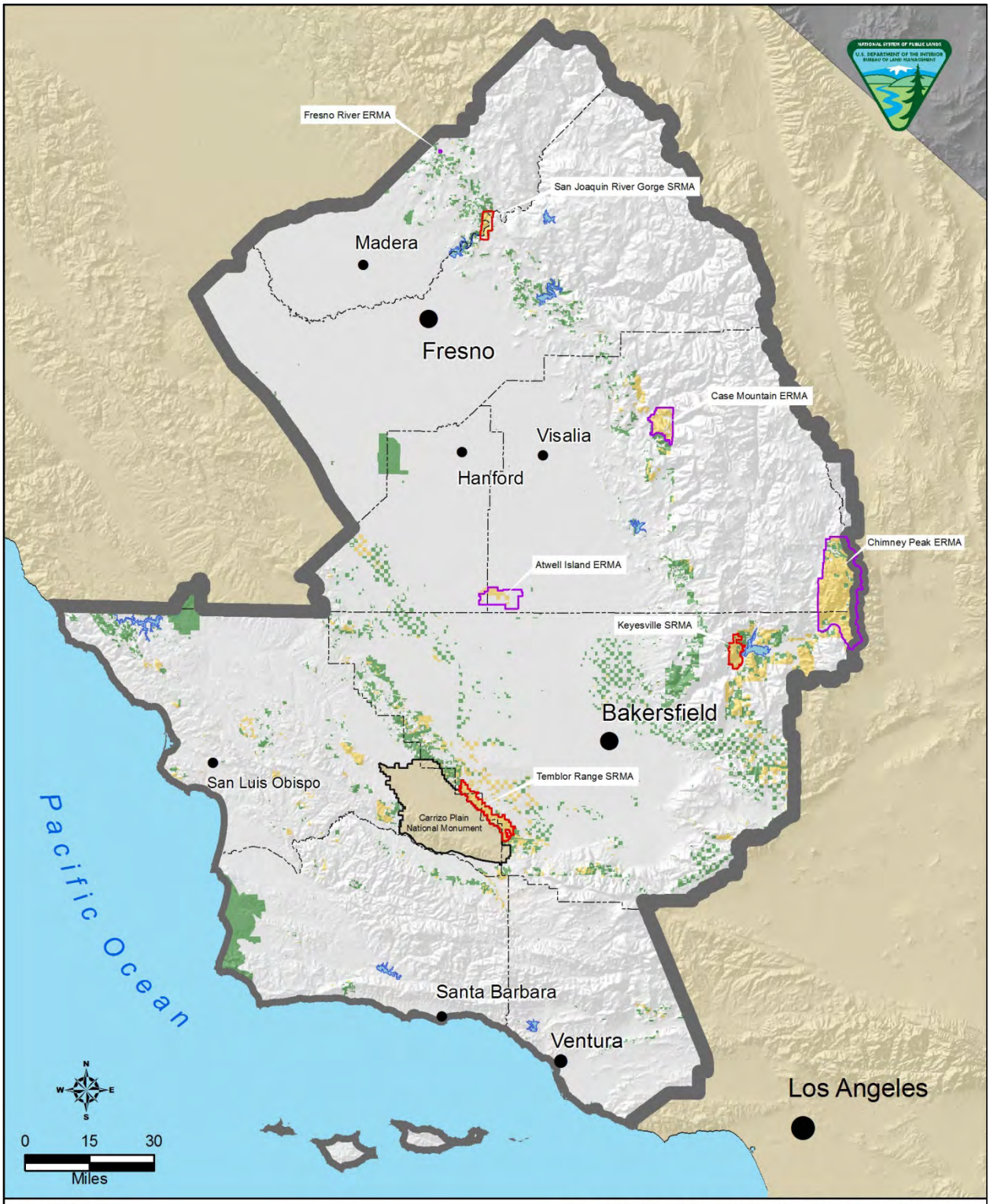
Class II

Class III

Class IV

Visual Resource Management Map
Alternative B
Bakersfield Field Office

Map 2.4



Legend

Bakersfield Field Office

County Boundary

Decision Area

Public Lands

Federal Mineral Estate

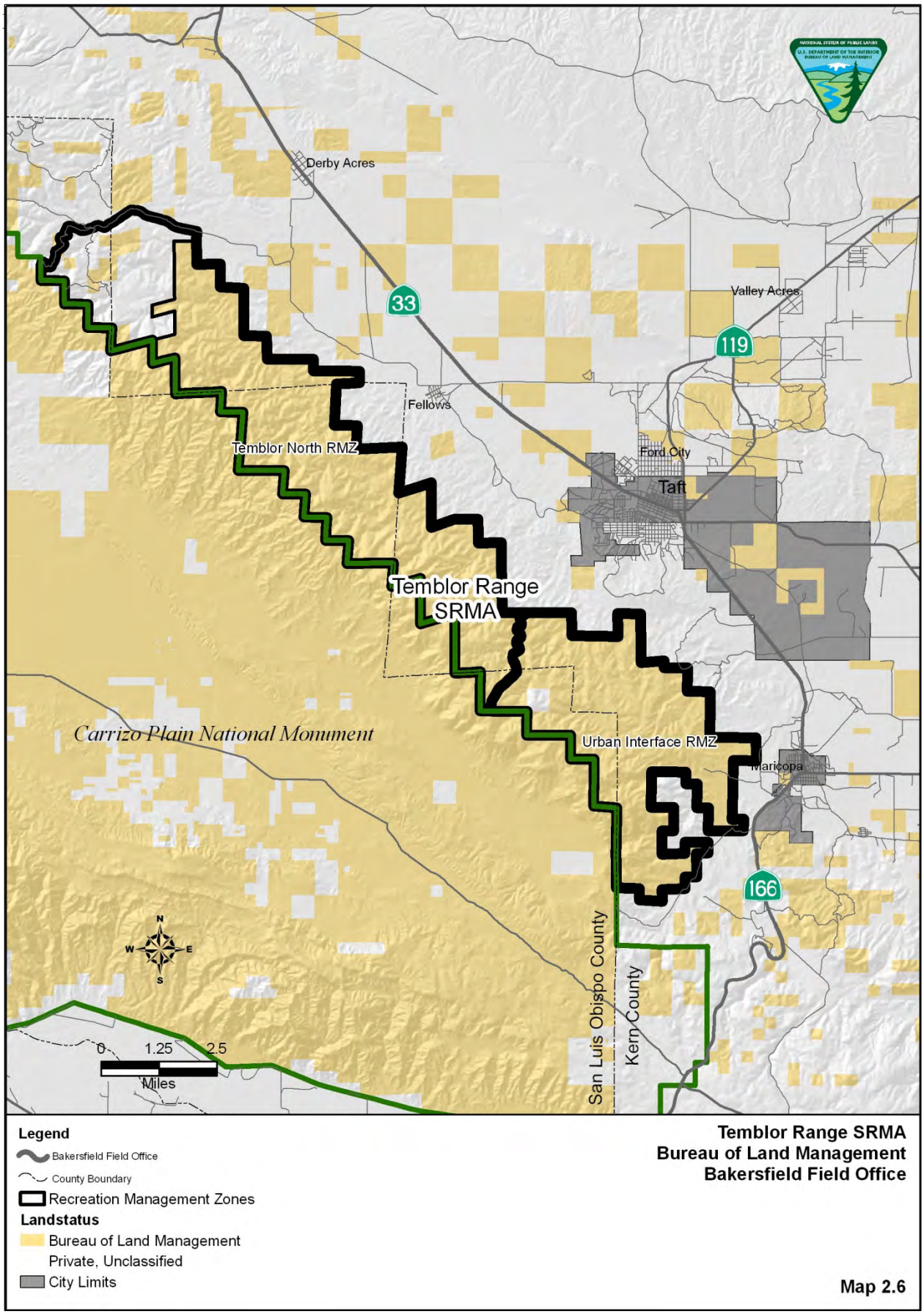
Recreation Designations

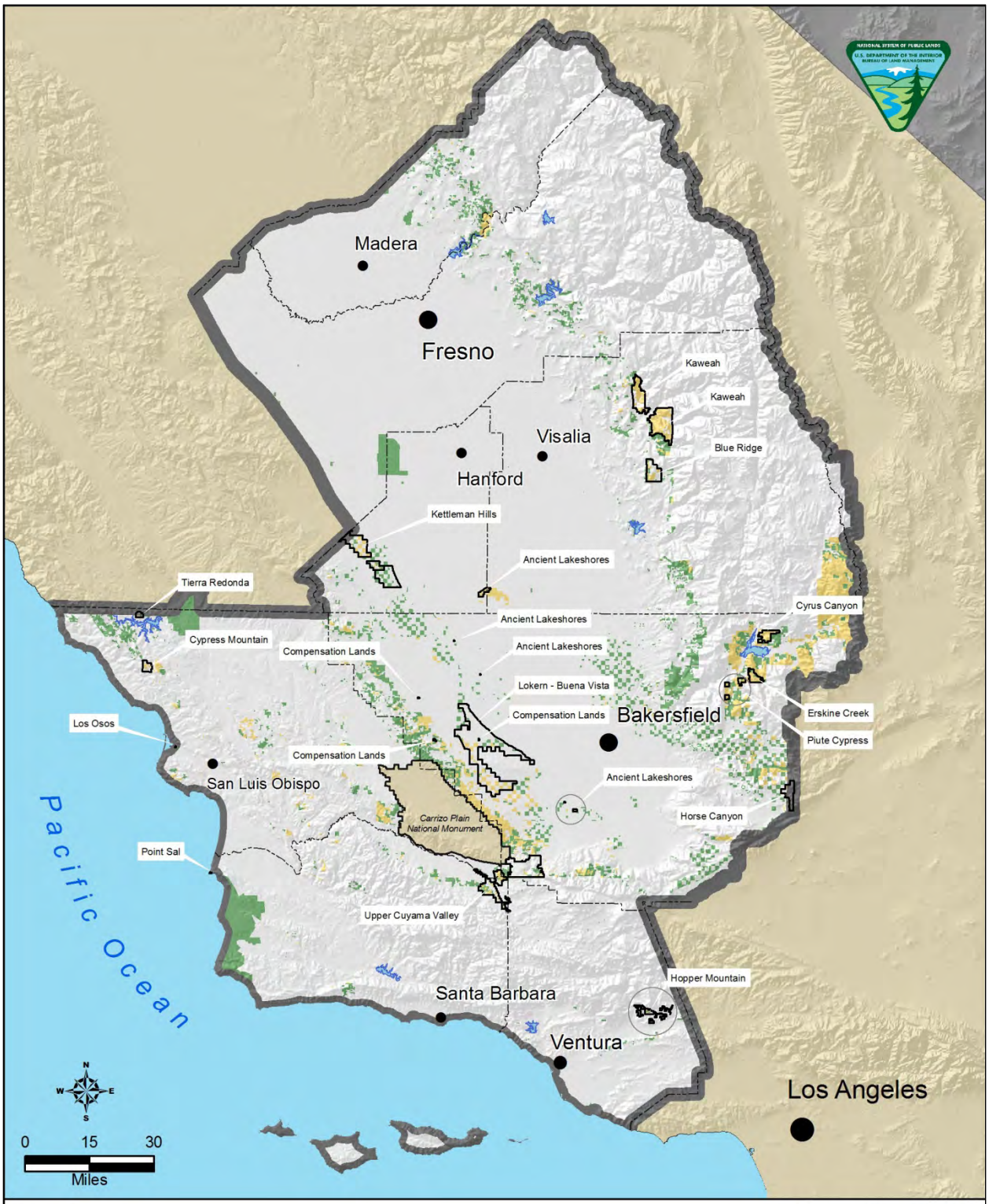
Extensive Recreation Management Areas (ERMAs)

Special Recreation Management Areas (SRMAs)

Recreation Management Area Designations
Alternative B
Bakersfield Field Office

Map 2.5


Derby Acres
33
Valley Acres
119
Fellows
Temblor North RMZ
Ford City
Taft
Temblor Range
SRMA
Carrizo Plain National Monument
Urban Interface RMZ
Maricopa
166
San Luis Obispo County
Kern County
N
W
E
S
0
1.25
2.5
Miles
Legend
Bakersfield Field Office
County Boundary
Recreation Management Zones
Landstatus
Bureau of Land Management
Private, Unclassified
City Limits
Temblor Range SRMA
Bureau of Land Management
Bakersfield Field Office
Map 2.6



Legend

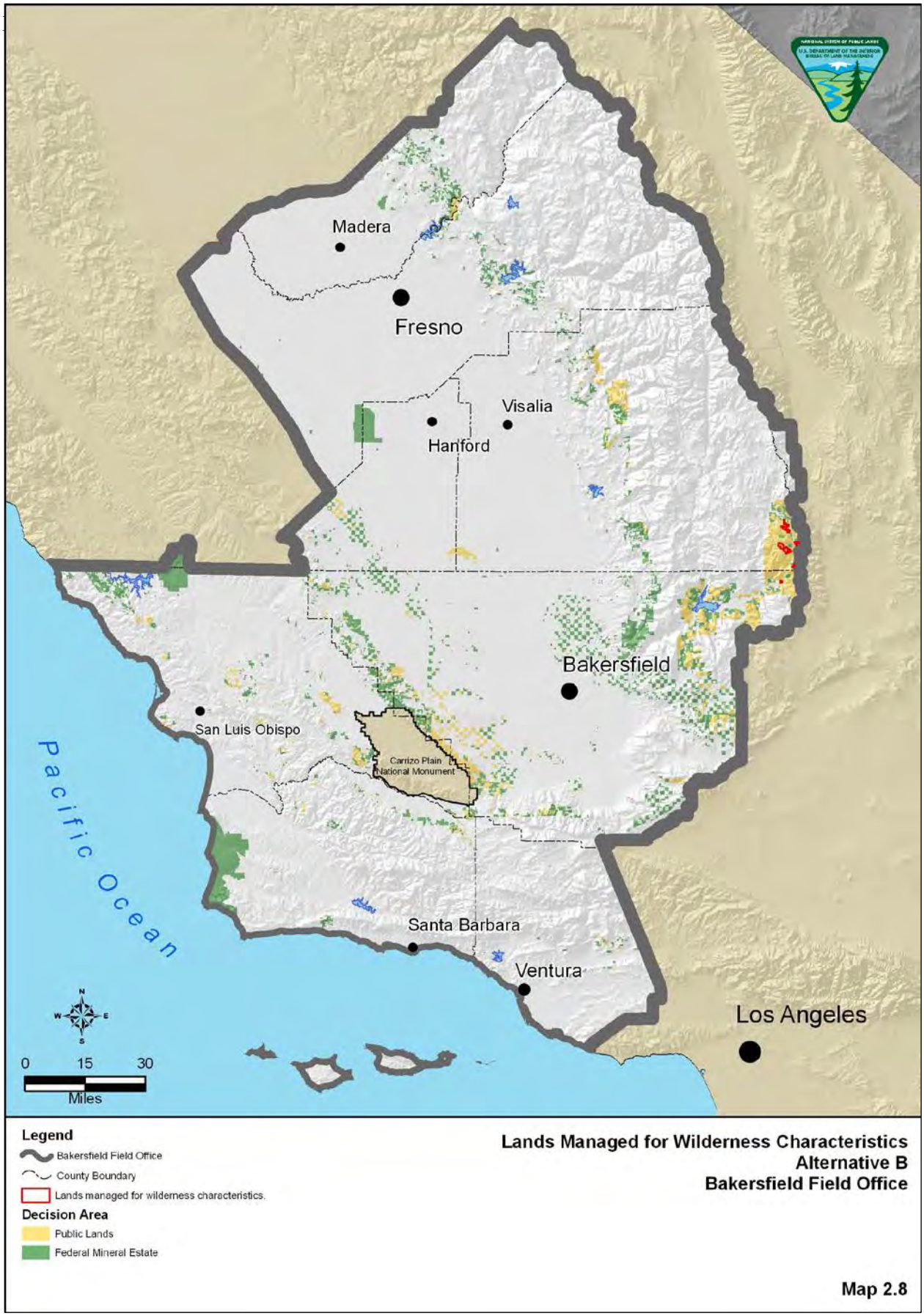
- Bakersfield Field Office
- County Boundary
- ACEC

Decision Area

- Public Lands
- Federal Mineral Estate

Recommended ACECs
Alternative B
Bureau of Land Management
Bakersfield Field Office

Map 2.7


Madera
Fresno
Visalia
Hanford
Bakersfield
San Luis Obispo
Carrizo Plain National Monument
Pacific Ocean
Santa Barbara
Ventura
Los Angeles
0 15 30
Miles
Legend
Bakersfield Field Office
County Boundary
Lands managed for wilderness characteristics.
Decision Area
Public Lands
Federal Mineral Estate
Lands Managed for Wilderness Characteristics
Alternative B
Bakersfield Field Office
Map 2.8

2.4 ALTERNATIVE C

The following section describes management that would be established under Alternative C, presented by program area. Where program management is the same across all action alternatives, it is presented above under *Management Common to All Action Alternatives*. Total management decisions for each program are inclusive of the decisions in both the common to all and this section.

The goals for each resource are common to all and, therefore, are presented in that section above. Some objectives do vary within the individual alternatives those that do are described below under the *Objective* headings.

RESOURCES

2.4.1 BIOLOGICAL RESOURCES

Decisions

Prohibit the release of un-retrieved nonnative animals, except for the use of approved biocontrol agents, authorized livestock, and the augmentation of naturalized species in accordance with a CDFG permit or plan.

Prohibit collection of dead and downed woody materials from public lands for any purpose, except where administratively approved.

Identify split estate with surface managed as compensation for biological resources as closed to fluid mineral leasing.

Identify the Compensation Lands ACEC as closed to fluid mineral leasing.

Recommend proposal for withdrawal from appropriation and entry under the General Mining Law federal mineral estate underlying compensation lands regardless of surface ownership.

Identify public lands with mineral estate adjacent to or within the boundary of the Chimineas unit of the Carrizo Ecological Reserve as closed to fluid mineral leasing.

Identify the following areas as areas of ecological importance with the specific management as described:

Conserved Lands: for protection and recovery of federally listed species on public lands identified as reserves or corridors by the USFWS and CDFG (see A Conservation Strategy for Threatened and Endangered Species in the San Joaquin Valley in Appendix B).

- Manage public lands within reserves or corridors as conserved land consistent with the direction established by the USFWS and CDFG through the Recovery Plan for Upland

Species of the San Joaquin Valley and other pertinent recovery of conservation plans and the Kern Valley Floor HCP and other pertinent HCPs.

- Manage reserves to restrict surface disturbance on public lands in reserves to not exceed 10 percent of any 640-acre section, aliquot section, or aggregate of adjacent aliquot sections.
- Manage corridors to restrict surface disturbance on public lands in corridors to not exceed 25 percent of any 640-acre section, aliquot section, or aggregate of adjacent aliquot sections.
- Allow certain areas of high intensity oil and gas development within reserves and corridors to be identified and managed separately from the reserve and corridor system. These areas will not be subject to the 10 percent and 25 percent surface disturbance limit.
- Include certain areas outside the reserve and corridor system to be managed as corridors including the application of corridor disturbance restrictions.

Recommend the following areas as Areas of Critical Environmental Concern (ACECs) based on their significant biological resource values; Bitter Creek ACEC; Cypress Mountain ACEC; Cyrus Canyon ACEC; Irish Hills ACEC; Rusty Peak ACEC; Salinas River ACEC; Tierra Redonda ACEC; and Upper Cuyama Valley ACEC.

2.4.2 CAVES AND KARST RESOURCES

Decisions

Granite Cave would be managed as part of the Granite Cave ACEC.

Designate Millerton Cave as significant cave, based on its important and significant cave resources, including geological formations, resources of known cultural importance, biotic resources, and the potential for resource-based recreation. This cave will be managed as Class III to fully protect the integrity of the area and its associated cave resources.

All caves within ACECs whose importance and significance speaks directly to the protection of known or potential cave and karst resources shall be determined significant, in accordance with 43 CFR 37.11(e). The ACECs whose designation relates to cave and karst Resources are Erskine Creek, Granite Cave, and Kaweah. Further investigation and study of these cave and karst resources may be required to assign management objectives and prescriptions. Interim management shall be as Class III to protect cave resources.

2.4.3 LANDS WITH WILDERNESS CHARACTERISTICS

Decisions

Manage the following areas (17,890 acres as shown on Map 2.12) for the protection of wilderness characteristics: Bear Mountain, Big Pine Meadow, Chappell D Parcel, Cyrus Canyon Audubon Donation, Edgar Ranch West, Lamont Meadow Parcels, Patterson Bend, Public Proposal I (Spoor

Canyon), Public Proposal II & III (Cuyama), Public Proposal IV (Santigo Creek), Public Proposal V (Bright Star Additions), and Roszewska Property.

Establish prescriptive management for the protection of wilderness characteristics as follows:

- Recommend proposal for withdrawal from mineral entry;
- Identify as closed to mineral leasing;
- Identify as closed to mineral material sales;
- Identify as Rights-of Way exclusion areas;
- Designate as OHV Closed area;
- Designate as VRM Class I;
- Livestock grazing and the activities and facilities that support a grazing program may be permitted to continue at the same level and degree after initial authorization;
- Prohibit new structures unrelated to preserving wilderness characteristics; and
- Retain in Federal ownership.

2.4.4 VISUAL RESOURCES

Decisions

Designate VRM classes for the Decision area (Map 2.9) and summarized by the following;

- Class I: 163,110 acres
- Class II: 250,060 acres
- Class III: 475,560 acres
- Class IV: 261,030 acres

RESOURCE USES

2.4.5 COMPREHENSIVE TRAIL AND TRAVEL MANAGEMENT

Decisions

Designate in accordance with 43 CFR 8340.05(f), (g), and (h) the following OHV areas:

- Open: 0 acres
- Closed: 166,300 acres
- Limited: 237,780 acres

Key Implementation Decisions

Designate roads and/or trails as identified on Travel Management Network Maps C/D 1-9, summarized by the following mileages:

- Motorized: 656 miles

- Non-motorized: 39 miles
- Non-mechanized: 45 miles
- Authorized: 617 miles
- Closed: 580 miles

2.4.6 LANDS AND REALTY

Land Tenure

Decisions

Determine the public lands (62,610 acres) and federal mineral estate (337,560 acres) shown on Map LR-C/D (Appendix O) as available for consideration of a disposal action (sale, exchange, or other means) in so much that these lands meet the "isolated, difficult or expensive to manage, or are needed for community expansion" disposal criteria contained in FLPMA Section 203(a). However, site-specific investigation to ascertain whether a specific parcel meets the disposal criteria outlined in this RMP would still be required prior to any disposal action being taken.

Land Use Authorizations

Decisions

Identify all ACECs, the Piedras Blancas ONA, and designated critical habitat as Right-of-way avoidance areas, except for rights-of-way related to utility scale renewable energy projects.

Identify the Piedras Blancas ONA, designated critical habitat, SRMAs, and VRM Class I and II areas as exclusion areas for utility scale renewable energy Rights-of-way.

Identify lands managed for wilderness characteristics, and Wild and Scenic River Corridors as Rights-of-way exclusion areas.

Withdrawals

Decisions

Recommend proposal for withdrawal all or certain types of mining operations under the mining laws 62,670 acres in 21 areas.

2.4.7 LIVESTOCK GRAZING

Objective

Provide for livestock grazing opportunities on lands in the grazing decision area so as to enhance other resources while meeting RMP goals.

Decisions

Allocate 322,200 acres of public land as available for livestock grazing; of which 7,800 acres (Atwell Island) would be available only for the purpose of vegetation management objectives other than producing livestock forage. Allocate the remaining 72,700 acres as unavailable for livestock grazing,

including riparian corridors of the San Joaquin River, North Fork of the Kaweah River, Caliente Creek, Canebrake Creek and the Deer Spring, Frog Pond and South Fork of the Kern River areas of ecological importance and Big Pine Meadow and Rosewska Meadow (Map LG-C, separate map packet).

Allocate newly acquired lands to match allocations given to the surrounding or adjacent lands, except where land is unsuitable for livestock grazing or the purpose for which the land was acquired is incompatible for livestock grazing including restrictions placed on future use through acquisition documents.

Apply the appropriate Bakersfield FO-specific livestock grazing management guidelines (Appendix F-2) to the applicable grazing authorizations within the grazing decision area as follows:

For Allotments within San Joaquin Valley listed species habitat;

- Mulch Readiness at 500 lbs/acre and 2" green growth, or 700 lbs/acre without green growth
- Mulch Threshold at 500 lbs/acre
- with Saltbush Scrub; Dec.1-May 31 season of use or meet form class, foliage density, and reproductive uniformity criteria

For Riparian areas in;

- Poor-Fair Condition; No grazing, use exclusionary fencing if needed.
- Good-Excellent Condition; No grazing, use exclusionary fencing if needed.

For known occupied habitats and/or known populations of;

- California jewelflower - No grazing unless in approved study or research show grazing to be beneficial.
- San Joaquin woolly threads - Apply the Central CA Guidelines for Livestock Grazing Management.
- Kern mallow - No grazing unless in approved study or research shows grazing to be beneficial.
- Hoover's woolly Star - Apply the Central CA Guidelines for Livestock Grazing Management.
- Kelso Creek monkeyflower - No grazing.
- Kern primrose sphinx moth - No grazing.
- Tehachapi slender salamander - No grazing.
- Other species that become listed - Prescription that takes into account specific species requirements.

Key Implementation Decisions

Authorize livestock grazing at the initial implementation levels (Appendix F-5). Based on existing authorizations, projected new authorizations and application of the central California and Bakersfield FO Specific livestock grazing management guidelines, forage authorized for livestock grazing within the Decision Area would total approximately 37,800 AUMs.

2.4.8 MINERALS MANAGEMENT

Leasable Minerals

Decisions

Identify approximately 966,160 acres as open to fluid mineral leasing, subject to major constraints (both CSU – Protected Species and CSU – Sensitive Species). Of this at least 8,400 acres would also be subject to a No Surface Occupancy stipulation. Additional CSU stipulations may be applied to all new leases in conjunction with the lease sale as determined appropriate and in conformance with the RMP.

Identify 46,850 acres as closed to fluid mineral leasing:

- Discretionary closures –ACECs (Bitter Creek and Compensation Lands), Chimineas Unit of the Carrizo Ecological Reserve, federal minerals below lands managed as compensation, lands managed for wilderness characteristics, and suitable WSR corridors.

Solid (Non-Energy) Leasables

Decisions

Identify 0 acres as open to solid (non-energy mineral) leasing and development.

Deny applications for all new non-energy leasables.

Locatable Minerals

Decisions

Determine and designate the Keyesville SRMA as unsuitable for Casual Use, Notice, and Plan of Operation levels mining operations (43 CFR 3809.10). Segregate this area and recommend proposal for its withdrawal from appropriation and all forms of mineral entry under the General Mining Law.

Salable Minerals

Decisions

Identify 781,120 acres as open to mineral material disposal.

2.4.9 RECREATION AND VISITOR SERVICES

Decisions

Identify 191,680 acres as lands not managed within a Recreation Management Area. Close 10,965 of these acres (Map 3.30) to public access located within producing oilfields, with densities averaging higher than 20 wells per 40 acres (or 0.5 wells per acre).

Designate 123,450 acres (Map 2.10) as the Chimney Peak Extensive Recreation Management Area with the following recreation objective, management actions and allowable use decisions;

> Throughout the life of the RMP the Chimney Peak ERMA will offer recreation opportunities, in an unchanged backcountry/primitive physical recreation setting, that facilitate the visitors' freedom to participate in primitive unconfined recreation types through easy access to designated Wilderness including camping grounds, trailheads and trails.
>
> - Maintain and improve designated camping areas at Chimney Creek, Long-Valley and Walker Pass.

Designate 23,750 acres as the Temblor Extensive Recreation Management Area with the following established recreation objective and management actions and allowable use decisions;

> Within the life of the RMP the Temblor ERMA will offer recreation opportunities in a back country physical setting, that facilitate the visitor's ability to participate in a variety of dispersed recreation activities commensurate with other resource values.
>
> - Acquire legal public access.

SPECIAL DESIGNATIONS

2.4.10 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Goal

Chico Martinez ACEC: Protect cultural resources, geologic formations, and various natural processes.

Cypress Mountain ACEC: Protect and preserve natural systems and processes.

Cyrus Canyon ACEC: Provide suitable habitat for sensitive species and protection for natural systems.

Granite Cave ACEC: Protect cultural resources, geologic formations, and various natural processes.

Horse Canyon ACEC: Protect cultural resources and various natural processes.

Irish Hills ACEC: Protect and preserve natural systems and processes.

Rusty Peak ACEC: Protect and preserve natural systems and processes

Salinas River ACEC: Provide suitable habitat for special status species and protection for natural systems.

Tierra Redonda ACEC: Protect geologic formations, and various natural processes.

Upper Cuyama Valley ACEC: Provide suitable habitat for sensitive and listed species and protection for natural systems.

Objectives

Chico Martinez ACEC: Protect important cultural, paleontological resources, and the Zemorrian stage geologic formations. Provide habitat for the San Joaquin Suite of listed species.

Cypress Mountain ACEC: Preserve unique plant communities of serpentine chaparral and northern interior cypress forest dominated by Sargent cypress.

Cyrus Canyon ACEC: Protect sensitive biological resources including Kelso Creek monkeyflower and riparian values.

Granite Cave ACEC: Protect several sensitive species and significant cultural resources including those associated with traditional Native American values.

Horse Canyon ACEC: Protect significant cultural sites, paleontological resources, and traditional cultural properties associated with Native American values.

Irish Hills ACEC: Preserve unique plant communities including coastal live oak forest, southern bishop pine, and chaparral, including numerous rare and endemic plants.

Rusty Peak ACEC: Preserve unique plant communities of serpentine chaparral, coast live oak woodland, and valley and foothill grassland, including San Luis serpentine dudleya and other sensitive plant species.

Salinas River ACEC: Maintain rare plant communities including central coast live oak riparian forest, central coast arroyo willow riparian forest, sycamore alluvial woodland, and central coast riparian scrub. Ensure no net loss of associated habitat for special status plants and animals.

Tierra Redonda ACEC: Preserve significant paleontological resources, unique sand dune formation and communities of coast live oak woodland.

Upper Cuyama Valley ACEC: Protect habitat for blunt-nosed leopard lizard and its hybrid zone, Kern primrose sphinx moth, and California jewelflower. Maintain the link between the Sierra Madre and the San Emigdio Mountains.

Decisions

Bitter Creek ACEC: Recommend for designation 1,026 acres of public lands and 5,095 acres of federal mineral estate; within a boundary of 20,914 acres, as the Bitter Creek ACEC (Map 2.11) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Prohibit public access to lands adjacent to USFWS surface (434 acres);
- Prohibit campfires and overnight camping; and
- Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting.

Chico Martinez ACEC: Recommend to continue the designation of 3,234 acres of public lands and 1,374 acres of federal mineral estate; within a boundary of 7,217 acres, as the Chico Martinez ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU-Protected Species, CSU-Sensitive Species and CSU-Raptor stipulations);
- Identify as closed to mineral materials disposals, except for administrative purposes; and
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects.

Compensation Lands ACEC: Recommend for designation 283 acres of public lands and any future parcels of compensation land as the Compensation Lands ACEC (Map 2.11) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Manage all existing and future parcels of compensation land (including lands not specifically labeled as "compensation" within the parcel) as part of the Compensation Lands ACEC;
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law if necessary, otherwise lands and minerals would remain unopened to entry under the mining laws;
- Prohibit campfires and overnight camping;
- Prohibit cross country equestrian travel in areas that are not grazed by livestock;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Require all pets to be leashed (maximum eight-foot length) at all times. Require removal of pet fecal matter by owners or handlers.

Cypress Mountain ACEC: Recommend to continue the designation of 1,080 acres of public lands; within a boundary of 3,035 acres, as the Cypress Mountain ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU- Priority Species, Plant Communities and Habitats stipulations);

- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;
- Prohibit cross county equestrian travel;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Cyrus Canyon ACEC: Recommend for designation 5,373 acres of public lands and 1 acre of federal mineral estate; within a boundary of 5,374 acres, as the Cyrus Canyon ACEC (Map 2.11) administered with the following special management:

- Identify as closed to mineral materials disposals, except for administrative purposes;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;
- Prohibit equestrian use;
- Prohibit the discharge of firearms, except the legal taking of game species;
- Prohibit the casual collection of plants or their parts without BLM authorization; and
- No new apiary permits will be authorized. The existing apiary permit will not be renewed on expiration.

Granite Cave ACEC: Recommend for designation 31 acres of public lands and 11 acres of federal mineral estate; within a boundary of 42 acres, as the Granite Cave ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (NSO);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects; and
- Prohibit public access.

Hopper Mountain ACEC: Recommend for designation 2,027 acres of public lands and 2,947 acres of federal mineral estate; within a boundary of 4,978 acres, as the Hopper Mountain ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (NSO).

- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify portions as unavailable for livestock grazing;
- Restrict public access through temporary emergency closure or in coordination with adjacent land managers, as needed for Condor protection;
- Implement Best Management Practices to minimize impacts on condors from public use and oil field activities;
- Prohibit campfires and overnight camping; and
- Prohibit the discharge of firearms, except the legal taking of game species.

Horse Canyon ACEC: Recommend to continue the designation of 1,491 acres of public lands and 1,339 acres of federal mineral estate; within a boundary of 6,897 acres, as the Horse Canyon ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (NSO);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Prohibit rock hounding, including the causal collection of fossils, mineral agates, and semi-precious stones.

Irish Hills ACEC: Recommend for designation 1,090 acres of public land and 564 acres of federal mineral estate; within a boundary of 1,814 acres, as the Irish Hills ACEC (Map 2.11) administered with the following special management:

- Identify as open to fluid mineral leasing, subject to moderate constraints (CSU - Priority Species, Plant Communities and Habitats stipulation);
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping, except in any future developed recreation sites developed in partnership with adjacent land owners;
- Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting;
- Prohibit cross country equestrian travel; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Kaweah ACEC: Recommend for designation 26,891 acres of public lands and 150 acres of federal mineral estate; within a boundary of 33,559 acres (expanding the existing Case Mountain ACEC), as the Kaweah ACEC (Map 2.11) administered with the following special management:

- Identify as open for leasing oil and gas resources, subject to moderate constraints (CSU-Raptor stipulations);
- Identify as closed to geothermal leasing;
- Recommend proposal of cave and karst resources and the giant sequoia groves for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify the giant sequoia groves as unavailable for livestock grazing;
- Prohibit public access to recreation sites along the North Fork of the Kaweah River.
- Prohibit the discharge of firearms, except the legal taking of game species;
- Prohibit the casual collection of plants or their parts without BLM authorization; and
- Protect the giant sequoia groves and mixed conifer forest through implementation of fuels reduction techniques including prescribed burning and vegetation thinning, and removal of ladder fuels.

Kettleman Hills ACEC: Recommend to continue the designation of 6,726 acres of public lands and 6,969 acres of federal mineral estate; within a boundary of 28,874 acres (expanding the existing 9,794-acre ACEC), as the Kettleman Hills ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU-Protected Species, CSU-Sensitive Species, and CSU-Raptor stipulations);
- Identify as closed to mineral materials disposals, except for administrative purposes;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects; and
- Prohibit campfires and overnight camping.

Lokern-Buena Vista ACEC: Recommend to continue the designation of 11,352 acres of public lands and 4,113 acres of federal mineral estate; within a boundary of 69,474 acres (combining the existing Lokern ACEC with the expansion to include the Buena Vista Hills and Valley), as the Lokern-Buena Vista ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (CSU-Protected Species and CSU-Sensitive Species stipulations;
- Identify as closed to mineral materials disposals, except for administrative purposes);
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;

- Prohibit public access except for travel through the area on county or state roads;
- Designate as an OHV Closed area; and
- Prohibit discharge of firearms, except the legal taking of game species.

Los Osos ACEC: Recommend for designation 5 acres of public lands; within a boundary of 32 acres, as the Los Osos ACEC (Map 2.11) administered with the following special management:

- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;
- Designate as OHV Closed area;
- Prohibit mechanized use, equestrian use, and cross-country travel by pedestrians;
- Prohibit all pets;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Piute Cypress ACEC: Recommend to continue the designation of 2,305 acres of public lands and 212 acres of federal mineral estate; within a boundary of 2,544 acres (expanding the existing 1,104-acre ACEC), as the Piute Cypress ACEC (Map 2.11) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Identify as closed to mineral materials disposals, except for administrative purposes;
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law if the WSA is released by congress from study status;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Protect Piute cypress communities from livestock grazing if deemed necessary through appropriate studies;
- Prohibit overnight camping and campfires;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Pt. Sal ACEC: Recommend to continue the designation of 77 acres of public lands; within a boundary of 77 acres, as the Pt. Sal ACEC (Map 2.11) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;

- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit public access; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Rusty Peak ACEC: Recommend for designation 786 acres of public lands and 1 acre of federal mineral estate; within a boundary of 789 acres, as the Rusty Peak ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU- Priority Species, Plant Communities and Habitats stipulation);
- Identify as unavailable for livestock grazing; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Salinas River ACEC: Recommend to continue the designation of 946 acres of public lands and 658 acres of federal mineral estate; within a boundary of 2,383 acres, as the Salinas River ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU- Priority Species, Plant Communities and Habitats stipulations);
- Recommend proposal of the riparian zone (approximately 10 acres) for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;
- Prohibit cross country equestrian travel; and
- Prohibit the discharge of firearms, except the legal taking of game species.

Tierra Redonda ACEC: Recommend to continue the designation of 331 acres of public lands and 81 acres of federal mineral estate; within a boundary of 1,311 acres, as the Tierra Redonda ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (NSO);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;

- Designate as an OHV Closed area;
- Prohibit mechanized and equestrian use;
- Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Upper Cuyama Valley ACEC: Recommend for designation 6,351 acres of public lands and 2,584 acres of federal mineral estate; within a boundary of 15,247 acres, as the Upper Cuyama Valley ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing subject to moderate constraints (CSU-Protected Species and CSU-Sensitive Species) stipulations;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing habitat containing California jewelflower or Kern primrose sphinx moth;
- Prohibit equestrian use in habitat containing California jewelflower or Kern primrose sphinx moth;
- Prohibit cross country equestrian travel outside of livestock grazing allotments; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

2.4.11 BACK COUNTRY BYWAYS

Decision

Revoke the Back Country Byway designation of Canebrake and Long Valley Loop Roads.

2.4.12 WILD AND SCENIC RIVERS

Decision

Determine as suitable and recommended for congressional designation in the NWSRS for the classifications identified the;

- Lower Kern River (Recreational);
- South Fork of the Kern River (Recreational);
- East Fork of the Kaweah (Recreational);
- Middle Fork of the Kaweah (Recreational);
- North Fork of the Kaweah (Scenic/Recreational);
- The Salinas River (Scenic);
- Chimney Creek (Wild/Recreational); and
- San Joaquin River Segment 1 (Wild/Scenic).

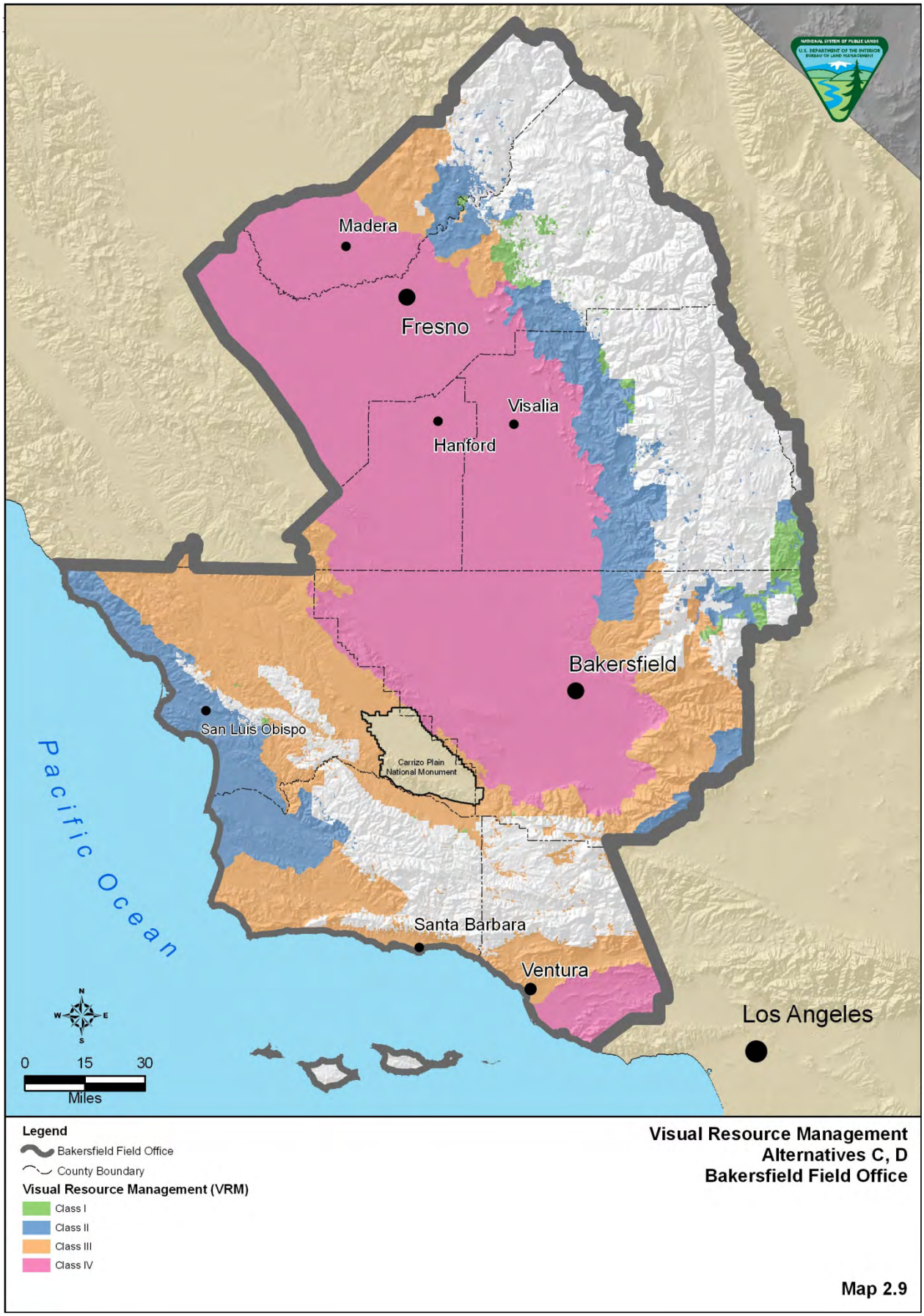
2.4.13 WILDERNESS STUDY AREAS

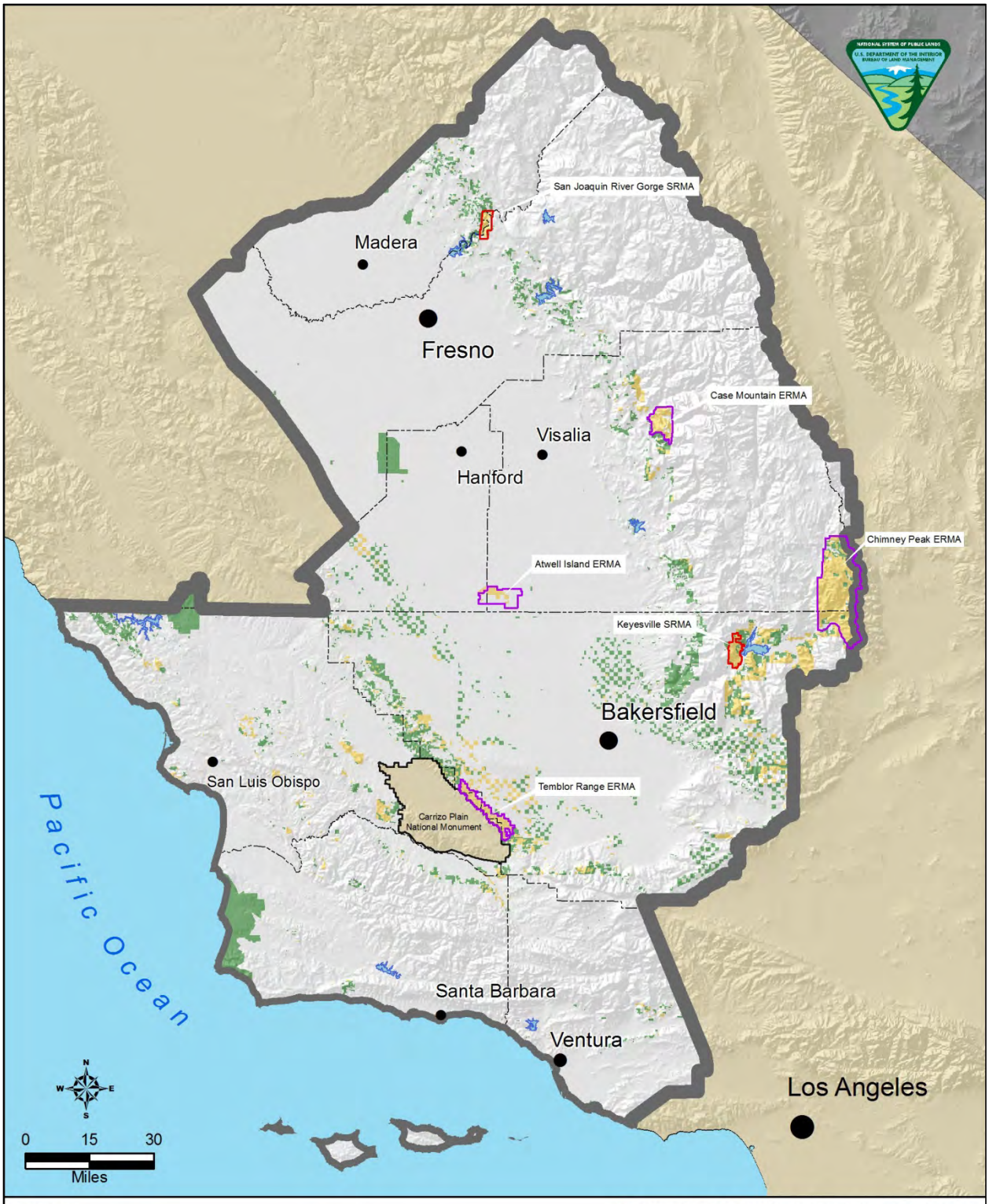
Objective

Provide continued protection of wilderness character within WSAs if released by Congress from study status.

Decision

Manage as lands with wilderness characteristics all WSAs released from study status by congress, unless congressional release language provides other specific management guidance.


Madera
Fresno
Visalia
Hanford
Bakersfield
San Luis Obispo
Carrizo Plain National Monument
Pacific Ocean
Santa Barbara
Ventura
Los Angeles
N
W
E
S
0 15 30
Miles
Legend
Bakersfield Field Office
County Boundary
Visual Resource Management (VRM)
Class I
Class II
Class III
Class IV
Visual Resource Management
Alternatives C, D
Bakersfield Field Office
Map 2.9



Legend

Bakersfield Field Office

County Boundary

Decision Area

Public Lands

Federal Mineral Estate

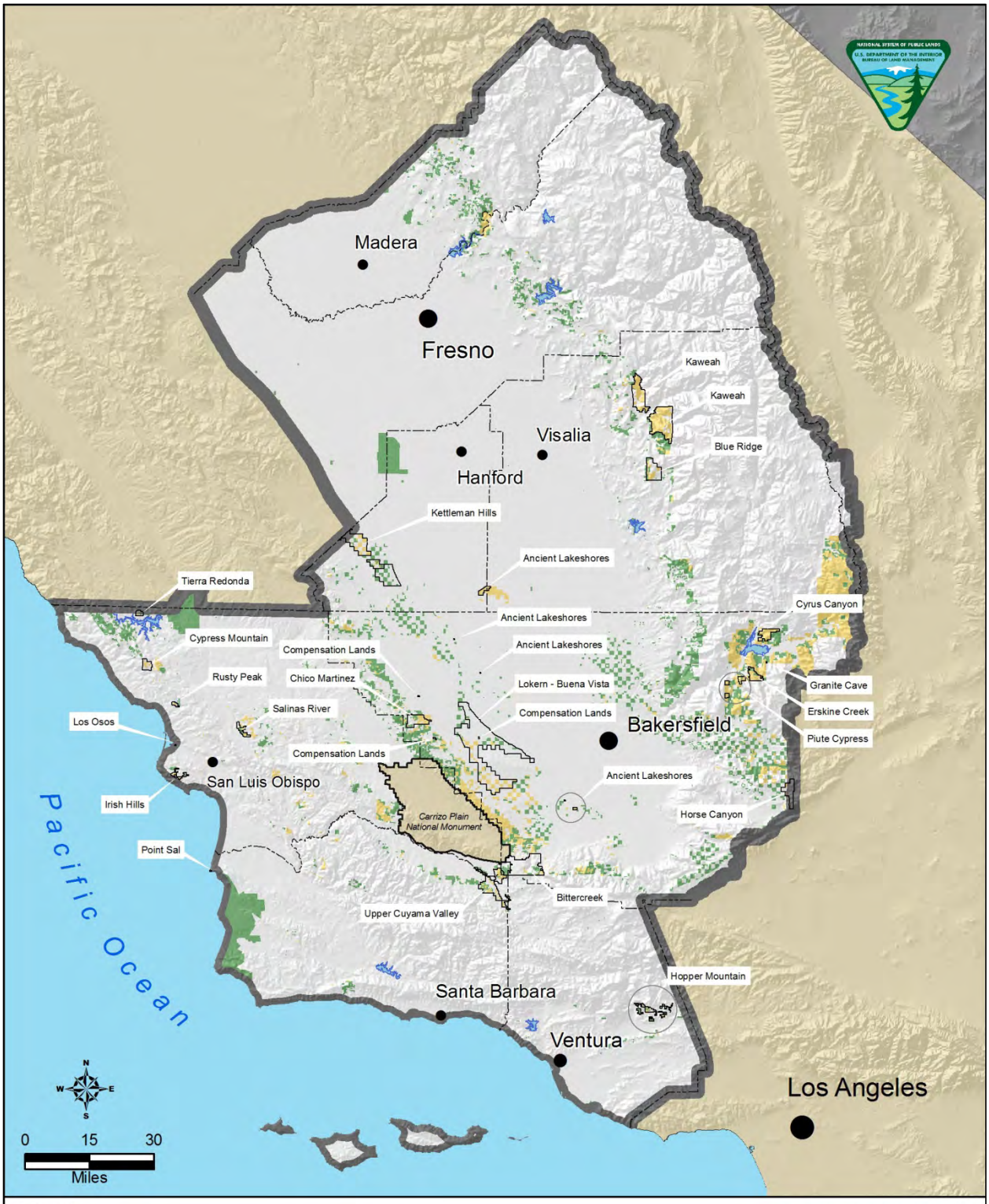
Recreation Designations

Extensive Recreation Management Areas (ERMAs)

Special Recreation Management Areas (SRMAs)

Recreation Management Designations
Alternatives C, D
Bakersfield Field Office

Map 2.10



Legend

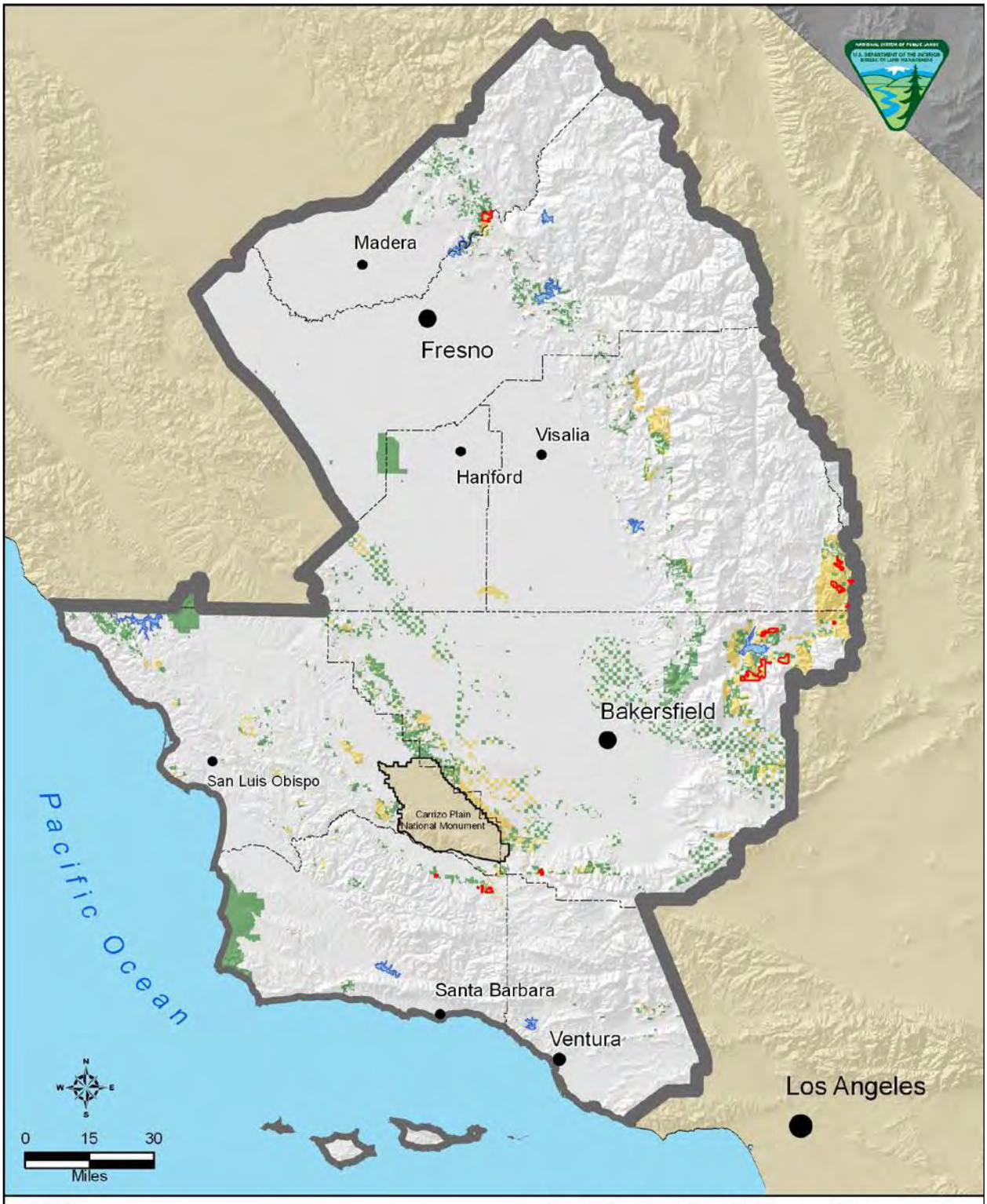
- Bakersfield Field Office
- County Boundary
- ACEC

Decision Area

- Public Lands
- Federal Mineral Estate

Recommended ACECs
Alternatives C, D
Bureau of Land Management
Bakersfield Field Office

Map 2.11



Legend

- Bakersfield Field Office
- County Boundary
- Lands Managed for Wilderness Characteristics

Public Lands

- Public Lands
- Federal Mineral Estate

Lands Managed for Wilderness Characteristics
Alternative C, D
Bakersfield Field Office

Map 2.12

2.5 ALTERNATIVE D

The following section describes management that would be established under Alternative D, presented by program area. Where program management is the same across all action alternatives, it is presented above under *Management Common to All Action Alternatives*. Total management decisions for each program are inclusive of the decisions in both the common to all and this section.

The goals for each resource are common to all and, therefore, are presented in that section above. Some objectives do vary within the individual alternatives those that do are described below under the *Objective* headings.

RESOURCES

2.5.1 BIOLOGICAL RESOURCES

Decisions

Prohibit the release of un-retrieved nonnative animals, except for the use of approved biocontrol agents, authorized livestock, and the augmentation of naturalized species in accordance with a CDFG permit or plan.

Prohibit collection of dead and downed woody materials from public lands for any purpose, except where administratively approved.

Identify split estate with surface managed as compensation for biological resources as closed to fluid mineral leasing.

Identify the Compensation Lands ACEC as closed to fluid mineral leasing.

Recommend proposal for withdrawal from appropriation and entry under the General Mining Law federal mineral estate underlying compensation lands regardless of surface ownership.

Identify public lands with mineral estate adjacent to or within the boundary of the Chimineas unit of the Carrizo Ecological Reserve as closed to fluid mineral leasing.

Identify the following areas as areas of ecological importance with the specific management as described:

Conserved Lands: for protection and recovery of federally listed species on public lands identified as reserves or corridors by the USFWS and CDFG (see A Conservation Strategy for Threatened and Endangered Species in the San Joaquin Valley in Appendix B).

- Manage public lands within reserves or corridors as conserved land consistent with the direction established by the USFWS and CDFG through the Recovery Plan for Upland Species of the San Joaquin Valley and other pertinent recovery of conservation plans and the Kern Valley Floor HCP and other pertinent HCPs.

- Manage reserves to restrict surface disturbance on public lands in reserves to not exceed 10 percent of any 640-acre section, aliquot section, or aggregate of adjacent aliquot sections.
- Manage corridors to restrict surface disturbance on public lands in corridors to not exceed 25 percent of any 640-acre section, aliquot section, or aggregate of adjacent aliquot sections.
- Allow certain areas of high intensity oil and gas development within reserves and corridors to be identified and managed separately from the reserve and corridor system. These areas will not be subject to the 10 percent and 25 percent surface disturbance limit.
- Include certain areas outside the reserve and corridor system to be managed as corridors including the application of corridor disturbance restrictions.

Recommend the following areas as Areas of Critical Environmental Concern (ACECs) based on their significant biological resource values; Bitter Creek ACEC; Cypress Mountain ACEC; Cyrus Canyon ACEC; Irish Hills ACEC; Rusty Peak ACEC; Salinas River ACEC; Tierra Redonda ACEC; and Upper Cuyama Valley ACEC.

2.5.2 CAVES AND KARST RESOURCES

Decisions

Granite Cave would be managed as part of the Granite Cave ACEC.

Designate Millerton Cave as significant cave, based on its important and significant cave resources, including geological formations, resources of known cultural importance, biotic resources, and the potential for resource-based recreation. This cave will be managed as Class III to fully protect the integrity of the area and its associated cave resources.

All caves within ACECs whose importance and significance speaks directly to the protection of known or potential cave and karst resources shall be determined significant, in accordance with 43 CFR 37.11(e). The ACECs whose designation relates to cave and karst Resources are Erskine Creek, Granite Cave, and Kaweah. Further investigation and study of these cave and karst resources may be required to assign management objectives and prescriptions. Interim management shall be as Class III to protect cave resources.

2.5.3 LANDS WITH WILDERNESS CHARACTERISTICS

Decisions

Manage the following areas (17,890 acres as shown on Map 2.12) for the protection of wilderness characteristics: Bear Mountain, Big Pine Meadow, Chappell D Parcel, Cyrus Canyon Audubon Donation, Edgar Ranch West, Lamont Meadow Parcels, Patterson Bend, Public Proposal I (Spoor Canyon), Public Proposal II & III (Cuyama), Public Proposal IV (Santigo Creek), Public Proposal V (Bright Star Additions), and Roszewska Property.

Establish prescriptive management for the protection of wilderness characteristics as follows:

- Recommend proposal for withdrawal from mineral entry;
- Identify as closed to mineral leasing;
- Identify as closed to mineral material sales;
- Identify as Rights-of Way exclusion areas;
- Designate as OHV Closed area;
- Designate as VRM Class I;
- Prohibit new structures unrelated to preserving wilderness characteristics; and
- Retain in Federal ownership.

2.5.4 VISUAL RESOURCES

Decisions

Designate VRM classes for the Decision Area (Map 2.9, above) and summarized by the following;

- Class I: 163,110 acres
- Class II: 250,060 acres
- Class III: 475,560 acres
- Class IV: 261,030 acres

RESOURCE USES

2.5.5 COMPREHENSIVE TRAIL AND TRAVEL MANAGEMENT

Decisions

Designate in accordance with 43 CFR 8340.05(f), (g), and (h) the following OHV areas:

- Open: 0 acres
- Closed: 166,300 acres
- Limited: 237,780 acres

Key Implementation Decisions

Designate roads and/or trails as identified on Travel Management Network Maps C/D 1-9, summarized by the following mileages:

- Motorized: 656 miles
- Non-motorized: 39 miles
- Non-mechanized: 45 miles
- Authorized: 617 miles
- Closed: 580 miles

2.5.6 LANDS AND REALTY

Land Tenure

Decisions

Determine the public lands (62,610 acres) and federal mineral estate (337,560 acres) shown on Map LR-C/D (Appendix O) as available for consideration of a disposal action (sale, exchange, or other means) in so much that these lands meet the "isolated, difficult or expensive to manage, or are needed for community expansion" disposal criteria contained in FLPMA Section 203(a). However, site-specific investigation to ascertain whether a specific parcel meets the disposal criteria outlined in this RMP would still be required prior to any disposal action being taken.

Land Use Authorizations

Decisions

Identify all ACECs, the Piedras Blancas ONA, and designated critical habitat as Right-of-way avoidance areas, except for rights-of-way related to utility scale renewable energy projects.

Identify the Piedras Blancas ONA, designated critical habitat, SRMAs, and VRM Class I and II areas as exclusion areas for utility scale renewable energy Rights-of-way.

Lands managed for wilderness characteristics and suitable Wild and Scenic River Corridors are identified as Right-of-way exclusion areas.

Withdrawals

Decisions

Recommend proposal for withdrawal all or certain types of mining operations under the mining laws 62,670 acres in 21 areas.

2.5.7 LIVESTOCK GRAZING

Objective

Eliminate livestock grazing on lands in the grazing decision area for the life of the plan.

Decisions

Allocate 0 acres of public land as Available for livestock grazing and 402,800 acres of land as unavailable for livestock grazing, as shown on Map LG-D, in separate map packet.

Allocate newly acquired lands as unavailable for livestock grazing.

Key Implementation Decisions

Initiate the process (43 CFR 4110.4-2(b) and 43 USC 1712 (e)) to terminate existing grazing permits/leases for the life of the plan. Forage available for livestock grazing within the Decision Area managed under other RMPs would total 900 AUMs (Appendix F-5).

2.5.8 MINERALS MANAGEMENT

Leasable Minerals

Decisions

Identify approximately 966,160 acres as open to fluid mineral leasing, subject to major constraints (both CSU – Protected Species and CSU – Sensitive Species). Of this at least 8,400 acres would also be subject to a No Surface Occupancy stipulation. Additional CSU stipulations may be applied to all new leases in conjunction with the lease sale as determined appropriate and in conformance with the RMP.

Identify 46,850 acres as closed to fluid mineral leasing:

- Discretionary closures –ACECs (Bitter Creek and Compensation Lands), Chimineas Unit of the Carrizo Ecological Reserve, federal minerals below lands managed as compensation, lands managed for wilderness characteristics, and suitable WSR corridors.

Solid (Non-Energy) Leasables

Decisions

Identify 0 acres as open to solid (non-energy) mineral leasing and development.

Deny applications for all new non-energy leasables.

Locatable Minerals

Decisions

Determine and designate the Keyesville SRMA as unsuitable for Casual Use, Notice, and Plan of Operation levels mining operations (43 CFR 3809.10). Segregate this area and recommend proposal for its withdrawal from appropriation and all forms of mineral entry under the General Mining Law.

Salable Minerals

Decisions

Identify 781,120 acres as open to mineral material disposal.

2.5.9 RECREATION AND VISITOR SERVICES

Decisions

Identify 191,680 acres as lands not managed within a Recreation Management Area. Close 10,965 of these acres to public access located within producing oilfields, with densities averaging higher than 20 wells per 40 acres (or 0.5 wells per acre).

Designate 123,450 acres (Map 2.10) as the Chimney Peak Extensive Recreation Management Area with the following recreation objective, management actions and allowable use decisions;

Throughout the life of the RMP the Chimney Peak Extensive Recreation Management Area will offer recreation opportunities, in an unchanged backcountry/primitive physical recreation setting, that facilitate the visitors' freedom to participate in primitive unconfined recreation types through easy access to designated Wilderness including camping grounds, trailheads and trails.

- Maintain and improve designated camping areas at Chimney Creek, Long-Valley and Walker Pass.

Designate 23,750 acres (Map 2.10) as the Temblor Extensive Recreation Management Area with the following recreation objective and management actions and allowable use decisions;

Within the life of the RMP the Temblor ERMA will offer recreation opportunities in a back country physical setting, that facilitate the visitor's ability to participate in a variety of dispersed recreation activities commensurate with other resource values.

- Acquire legal public access.

SPECIAL DESIGNATIONS

2.5.10 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Goal

Chico Martinez ACEC: Protect cultural resources, geologic formations, and various natural processes.

Cypress Mountain ACEC: Protect and preserve natural systems and processes.

Cyrus Canyon ACEC: Provide suitable habitat for sensitive species and protection for natural systems.

Granite Cave ACEC: Protect cultural resources, geologic formations, and various natural processes.

Horse Canyon ACEC: Protect cultural resources, and various natural processes.

Irish Hills ACEC: Protect and preserve natural systems and processes.

Rusty Peak ACEC: Protect and preserve natural systems and processes

Salinas River ACEC: Provide suitable habitat for special status species and protection for natural systems.

Tierra Redonda ACEC: Protect geologic formations, and various natural processes.

Upper Cuyama Valley ACEC: Provide suitable habitat for sensitive and listed species and protection for natural systems.

Objectives

Chico Martinez ACEC: Protect important cultural, paleontological resources, and the Zemorrian stage geologic formations. Provide habitat for the San Joaquin Suite of listed species.

Cypress Mountain ACEC: Preserve unique plant communities of serpentine chaparral and northern interior cypress forest dominated by Sargent cypress.

Cyrus Canyon ACEC: Protect sensitive biological resources including Kelso Creek monkeyflower and riparian values.

Granite Cave ACEC: Protect cultural and paleontological resources, Native American traditional values and several sensitive species.

Horse Canyon ACEC: Protect significant cultural sites, paleontological resources, and traditional cultural properties associated with Native American values.

Irish Hills ACEC: Preserve unique plant communities including coastal live oak forest, southern bishop pine, and chaparral, including numerous rare and endemic plants.

Rusty Peak ACEC: Preserve unique plant communities of serpentine chaparral, coast live oak woodland, and valley and foothill grassland, including San Luis serpentine dudleya and other sensitive plant species.

Salinas River ACEC: Maintain rare plant communities including central coast live oak riparian forest, central coast arroyo willow riparian forest, sycamore alluvial woodland, and central coast riparian scrub. Ensure no net loss of associated habitat for special status plants and animals.

Tierra Redonda ACEC: Preserve significant paleontological values, unique sand dune environment formation and communities of coast live oak woodland.

Upper Cuyama Valley ACEC: Protect habitat for blunt-nosed leopard lizard and its hybrid zone, Kern primrose sphinx moth, and California jewelflower. Maintain the link between the Sierra Madre and the San Emigdio Mountains.

Decisions

Bitter Creek ACEC: Recommend for designation 1,026 acres of public lands and 5,095 acres of federal mineral estate; within a boundary of 20,914 acres, as the Bitter Creek ACEC (Map 2.11) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Prohibit public access to lands adjacent to USFWS surface (434 acres);
- Prohibit campfires and overnight camping; and
- Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting.

Chico Martinez ACEC: Recommend to continue the designation of 3,234 acres of public lands and 1,374 acres of federal mineral estate; within a boundary of 7,217 acres, as the Chico Martinez ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU-Protected Species, CSU-Sensitive Species and CSU-Raptor stipulations);
- Identify as closed to mineral materials disposals, except for administrative purposes; and
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects.

Compensation Lands ACEC: Recommend for designation 283 acres of public lands and any future parcels of compensation land as the Compensation Lands ACEC (Map 2.11) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Manage all existing and future parcels of compensation land (including lands not specifically labeled as "compensation" within the parcel) as part of the Compensation Lands ACEC;
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law if necessary, otherwise lands and minerals would remain unopened to entry under the mining laws;
- Prohibit campfires and overnight camping;
- Prohibit cross country equestrian travel in areas that are not grazed by livestock;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Require all pets to be leashed (maximum eight-foot length) at all times. Require removal of pet fecal matter by owners or handlers.

Cypress Mountain ACEC: Recommend to continue the designation of 1,080 acres of public lands; within a boundary of 3,035 acres, as the Cypress Mountain ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU- Priority Species, Plant Communities and Habitats stipulations);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Prohibit campfires and overnight camping;
- Prohibit cross county equestrian travel;
- Prohibit the discharge of firearms, except the legal taking of game species; and

- Prohibit the casual collection of plants or their parts without BLM authorization.

Cyrus Canyon ACEC: Recommend for designation 5,373 acres of public lands and 1 acre of federal mineral estate; within a boundary of 5,374 acres, as the Cyrus Canyon ACEC (Map 2.11) administered with the following special management:

- Identify as closed to mineral materials disposals, except for administrative purposes;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Prohibit campfires and overnight camping;
- Prohibit equestrian use;
- Prohibit the discharge of firearms, except the legal taking of game species;
- Prohibit the casual collection of plants or their parts without BLM authorization; and
- No new apiary permits will be authorized. The existing apiary permit will not be renewed on expiration.

Granite Cave ACEC: Recommend for designation 31 acres of public lands and 11 acres of federal mineral estate; within a boundary of 42 acres, as the Granite Cave ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (NSO);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects; and
- Prohibit public access.

Hopper Mountain ACEC: Recommend for designation 2,027 acres of public lands and 2,947 acres of federal mineral estate; within a boundary of 4,978 acres, as the Hopper Mountain ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (NSO);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify portions as unavailable for livestock grazing;
- Restrict public access through temporary emergency closure or in coordination with adjacent land managers, as needed for Condor protection;
- Implement Best Management Practices to minimize impacts on condors from public use and oil field activities;

- Prohibit campfires and overnight camping; and
- Prohibit the discharge of firearms, except the legal taking of game species.

Horse Canyon ACEC: Recommend to continue the designation of 1,491 acres of public lands and 1,339 acres of federal mineral estate; within a boundary of 6,897 acres, as the Horse Canyon ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (NSO);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Prohibit rock hounding, including the causal collection of fossils, mineral agates, semi-precious stones.

Irish Hills ACEC: Recommend for designation 1,090 acres of public land and 564 acres of federal mineral estate; within a boundary of 1,814 acres, as the Irish Hills ACEC (Map 2.11) administered with the following special management:

- Identify as open to fluid mineral leasing, subject to moderate constraints (CSU - Priority Species, Plant Communities and Habitats stipulation);
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Prohibit campfires and overnight camping, except in any future developed recreation sites developed in partnership with adjacent land owners;
- Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting;
- Prohibit cross country equestrian travel; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Kaweah ACEC: Recommend for designation 26,891 acres of public lands and 150 acres of federal mineral estate; within a boundary of 33,559 acres (expanding the existing Case Mountain ACEC), as the Kaweah ACEC (Map 2.11) administered with the following special management:

- Identify as open for leasing oil and gas resources, subject to moderate constraints (CSU-Raptor stipulations);
- Identify as closed to geothermal leasing;
- Recommend proposal of cave and karst resources and the giant sequoia groves for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;

- Identify the giant sequoia groves as unavailable for livestock grazing;
- Prohibit public access to recreation sites along the North Fork of the Kaweah River.
- Prohibit the discharge of firearms, except the legal taking of game species;
- Prohibit the casual collection of plants or their parts without BLM authorization; and
- Protect the giant sequoia groves and mixed conifer forest through implementation of fuels reduction techniques including prescribed burning and vegetation thinning, and removal of ladder fuels.

Kettleman Hills ACEC: Recommend to continue the designation of 6,726 acres of public lands and 6,969 acres of federal mineral estate; within a boundary of 28,874 acres (expanding the existing 9,794-acre ACEC), as the Kettleman Hills ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU-Protected Species, CSU-Sensitive Species, and CSU-Raptor stipulations);
- Identify as closed to mineral materials disposals, except for administrative purposes;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects; and
- Prohibit campfires and overnight camping.

Lokern-Buena Vista ACEC: Recommend to continue the designation of 11,352 acres of public lands and 4,113 acres of federal mineral estate; within a boundary of 69,474 acres (combining the existing Lokern ACEC with the expansion to include the Buena Vista Hills and Valley), as the Lokern-Buena Vista ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (CSU-Protected Species and CSU-Sensitive Species stipulations;
- Identify as closed to mineral materials disposals, except for administrative purposes);
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Prohibit public access except for travel through the area on county or state roads;
- Designate as an OHV Closed area; and
- Prohibit discharge of firearms, except the legal taking of game species.

Los Osos ACEC: Recommend for designation 5 acres of public lands; within a boundary of 32 acres, as the Los Osos ACEC (Map 2.11) administered with the following special management:

- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;

- Designate as OHV Closed area;
- Prohibit mechanized use, equestrian use, and cross-country travel by pedestrians;
- Prohibit all pets;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Piute Cypress ACEC: Recommend to continue the designation of 2,305 acres of public lands and 212 acres of federal mineral estate; within a boundary of 2,544 acres (expanding the existing 1,104-acre ACEC), as the Piute Cypress ACEC (Map 2.11) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Identify as closed to mineral materials disposals, except for administrative purposes;
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law if the WSA is released by congress from study status;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Protect Piute cypress communities from livestock grazing if deemed necessary through appropriate studies;
- Prohibit overnight camping and campfires;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Pt. Sal ACEC: Recommend to continue the designation of 77 acres of public lands; within a boundary of 77 acres, as the Pt. Sal ACEC (Map 2.11) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Identify as unavailable for livestock grazing;
- Prohibit public access; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Rusty Peak ACEC: Recommend for designation 786 acres of public lands and 1 acre of federal mineral estate; within a boundary of 789 acres, as the Rusty Peak ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU- Priority Species, Plant Communities and Habitats stipulation);
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Salinas River ACEC: Recommend to continue the designation of 946 acres of public lands and 658 acres of federal mineral estate; within a boundary of 2,383 acres, as the Salinas River ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU- Priority Species, Plant Communities and Habitats stipulations);
- Recommend proposal of the riparian zone (approximately 10 acres) for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Prohibit campfires and overnight camping;
- Prohibit cross country equestrian travel; and
- Prohibit the discharge of firearms, except the legal taking of game species.

Tierra Redonda ACEC: Recommend to continue the designation of 331 acres of public lands and 81 acres of federal mineral estate; within a boundary of 1,311 acres, as the Tierra Redonda ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (NSO);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Prohibit campfires and overnight camping;
- Designate as an OHV Closed area;
- Prohibit mechanized and equestrian use;
- Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Upper Cuyama Valley ACEC: Recommend for designation 6,351 acres of public lands and 2,584 acres of federal mineral estate; within a boundary of 15,247 acres, as the Upper Cuyama Valley ACEC (Map 2.11) administered with the following special management:

- Identify as open for fluid mineral leasing subject to moderate constraints (CSU-Protected Species and CSU-Sensitive Species) stipulations;

- Identify as an exclusion area for rights-of-way related to utility scale renewable energy projects;
- Prohibit cross country equestrian travel;
- Prohibit equestrian use in habitat containing California jewelflower or Kern primrose sphinx moth; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

2.5.11 BACK COUNTRY BYWAYS

Decision

Revoke the Back Country Byway designation of Canebrake and Long Valley Loop Roads.

2.5.12 WILD AND SCENIC RIVERS

Decision

Determine as suitable and recommended for congressional designation in the NWSRS for the classifications identified the;

- Lower Kern River (Recreational);
- South Fork of the Kern River (Recreational);
- East Fork of the Kaweah (Recreational);
- Middle Fork of the Kaweah (Recreational);
- North Fork of the Kaweah (Scenic/Recreational);
- The Salinas River (Scenic);
- Chimney Creek (Wild/Recreational); and
- San Joaquin River Segment 1 (Wild/Scenic).

2.5.13 WILDERNESS STUDY AREAS

Objective

Provide continued protection of wilderness characteristics present within WSAs if released by Congress from study status.

Decision

Manage as lands with wilderness characteristics all WSAs released from study status by congress, unless congressional release language provides other specific management guidance.

2.6 ALTERNATIVE E

The following section describes management that would be established under Alternative E, presented by program area. Where program management is the same across all action alternatives, it is presented above under *Management Common to All Action Alternatives*. Total management decisions for each program are inclusive of the decisions in both the common to all and this section.

The goals for each resource are common to all and, therefore, are presented in that section above. Some objectives do vary within the individual alternatives those that do are described below under the *Objective* headings.

RESOURCES

2.6.1 BIOLOGICAL RESOURCES

Decisions

Prohibit removal of dead and downed woody materials from public lands, except where administratively approved. Collection of fire wood from dead and down woody material for on-site campfires is permissible provided woody material is less than four inches in diameter.

Prohibit the release of un-retrieved nonnative animals, except for the use of approved biocontrol agents, authorized livestock, and for recreational purpose and the augmentation of naturalized species in accordance with a CDFG permit or plan.

Identify lands managed by the BLM or an entity other than BLM (split estate) as compensation for biological resources as open to fluid mineral leasing subject to major constraint (CSU – compensation lands).

Identify the following areas as areas of ecological importance with the specific management as described:

Conserved Lands: for protection and recovery of federally listed species on public lands identified as reserves or corridors by the USFWS and CDFG (see A Conservation Strategy for Threatened and Endangered Species in the San Joaquin Valley in Appendix B).

- Manage public lands within reserves or corridors as conserved land consistent with the direction established by the USFWS and CDFG through the Recovery Plan for Upland Species of the San Joaquin Valley and other pertinent recovery of conservation plans and the Kern Valley Floor HCP and other pertinent HCPs.
- Manage reserves to restrict surface disturbance on public lands in reserves to not exceed 10 percent of any 640-acre section, aliquot section, or aggregate of adjacent aliquot sections.

- Manage corridors to restrict surface disturbance on public lands in corridors to not exceed 25 percent of any 640-acre section, aliquot section, or aggregate of adjacent aliquot sections.
- Allow certain areas of high intensity oil and gas development within reserves and corridors to be identified and managed separately from the reserve and corridor system. These areas will not be subject to the 10 percent and 25 percent surface disturbance limit.

Cypress Mountain: for protection of the rare and unique plant communities of serpentine chaparral and northern interior cypress forest, dominated by Sargent cypress.

- Identify as open for fluid mineral leasing, subject to major constraints (CSU- Priority Species, Plant Communities and Habitats stipulations);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as unavailable for livestock grazing;
- Prohibit campfires;
- Prohibit overnight camping;
- Prohibit cross county equestrian travel;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Cyrus Canyon: to protect sensitive plant populations, especially habitat for Kelso Creek monkeyflower.

- Identify as closed to mineral materials disposals, except for administrative purposes;
- Identify as available for livestock grazing, except areas excluded for protection of monkeyflower species (Mimulus spp.);
- Prohibit campfires and overnight camping;
- Prohibit equestrian use;
- Prohibit the discharge of firearms, except the legal taking of game species;
- Prohibit the casual collection of plants or their parts without BLM authorization; and
- No new apiary permits will be authorized. The existing apiary permit may be renewed but not transferred.

Irish Hills: for protection of diverse coastal plant communities, including Bishop pine forest, rare plant habitat, and notably large oaks and manzanita.

- Identify as open to fluid mineral leasing, subject to major constraints (CSU - Priority Species, Plant Communities and Habitats stipulation);
- Identify as unavailable for livestock grazing;

- Prohibit campfires and overnight camping, except in any future developed recreation sites developed in partnership with adjacent land owners.
- Prohibit the discharge of firearms, except the legal taking of game species;
- Prohibit cross country equestrian travel; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Rusty Peak: for protection of serpentine chaparral, coastal live oak woodland, perennial grassland, San Luis serpentine dudleya and other sensitive plant species.

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU-Priority Species, Plant Communities and Habitats stipulation);
- Identify as unavailable for livestock grazing; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Salinas River: for protection of diverse vegetation communities and the exemplary riparian area.

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU-Priority Species, Plant Communities and Habitats stipulations);
- Recommend proposal of the riparian zone (approximately 10 acres) for withdrawal from appropriation and entry under the General Mining Law;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;
- Prohibit cross country equestrian travel; and
- Prohibit the discharge of firearms, except the legal taking of game species.

Tierra Redonda: for protection of the, coast live oak woodland and habitat associated with the unique sand dune formation.

- Identify as open for fluid mineral leasing, subject to major constraints (NSO);
- Recommend proposal for withdrawal from appropriation and entry under the General Mining Law;
- Identify as closed to mineral materials disposals and solid mineral leasing;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;
- Prohibit cross country equestrian travel;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Upper Cuyama Valley: for protection of habitat for blunt-nosed leopard lizard, Kern primrose sphinx moth, and California jewelflower, to protect the leopard lizard hybrid zone, and to maintain a linkage between the Sierra Madre and the San Emigdio Mountains.

- Identify as open for fluid mineral leasing subject to major constraints (CSU-Protected Species and CSU-Sensitive Species) stipulations;
- Identify as unavailable for livestock grazing habitat containing California jewelflower or Kern primrose sphinx moth;
- Prohibit equestrian use in habitat containing California jewelflower or Kern primrose sphinx moth;
- Prohibit cross country equestrian travel outside of livestock grazing allotments; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

2.6.2 CAVES AND KARST RESOURCES

Decisions

Designate Granite Cave as a significant cave, based on its important and significant cave resources, which include both cultural and biotic resources, that are within and dependent on the cave. This cave will be managed as Class III to fully protect the cultural integrity of the area and its associated cave resources.

Designate Millerton Cave as a significant cave, based on its important and significant cave resources, including geological formations, resources of known cultural importance, biotic resources, and the potential for resource-based recreation. This cave will be managed as Class I to allow occasional recreational use.

All caves within ACECs whose importance and significance speaks directly to the protection of known or potential cave and karst resources shall be determined significant, in accordance with 43 CFR 37.11(e). The ACECs whose designation relates to cave and karst resources are Erskine Creek and Kaweah. Further investigation and study of these cave and karst resources may be required to assign management objectives and prescriptions. Interim management shall be as Class II to protect cave resources.

2.6.3 LANDS WITH WILDERNESS CHARACTERISTICS

Decisions

Establish prescriptive management for the protection of wilderness characteristics on 0 acres.

2.6.4 VISUAL RESOURCES

Decisions

Designate VRM classes for the Decision Area (Map 2.13) and summarized by the following;

- Class I: 143,300 acres

- Class II: 36,740 acres
- Class III: 361,620 acres
- Class IV: 608,100 acres

RESOURCE USES

2.6.5 COMPREHENSIVE TRAIL AND TRAVEL MANAGEMENT

Decisions

Designate in accordance with 43 CFR 8340.05(f), (g), and (h) the following OHV areas:

- Open: 70 acres
- Closed: 136,280 acres
- Limited: 264,560 acres

Key Implementation Decisions

Designate roads and/or trails as identified on Travel Management Network Maps E 1-9, summarized by the following mileages:

- Motorized: 1683 miles
- Non-motorized: 31 miles
- Non-mechanized: 45 miles
- Authorized: 112 miles
- Closed: 65 miles

2.6.6 LANDS AND REALTY

Land Tenure

Decision

Determine the public lands (63,730 acres) and federal mineral estate (328,790 acres) shown on Map LR-E (Appendix O) as available for consideration of a disposal action (sale, exchange, or other means) in so much that these lands meet the "isolated, difficult or expensive to manage, or are needed for community expansion" disposal criteria contained in FLPMA Section 203(a). However, site-specific investigation to ascertain whether a specific parcel meets the disposal criteria outlined in this RMP would still be required prior to any disposal action being taken.

Disposal of unleased mineral estate with no fluid mineral potential may be deemed to serve national interest therefore may be considered for disposal.

Land Use Authorizations

Decision

Identify all ACECs and the Piedras Blancas ONA as Right-of-way avoidance areas.

Withdrawals

Decisions

Recommend proposal for withdrawal all or certain types of mining operations under the mining laws 17,770 acres in 14 areas.

2.6.7 LIVESTOCK GRAZING

Objectives

Increase or improve livestock grazing opportunities on lands in the grazing decision area so as to meet the RMP goals.

Decisions

Allocate 345,800 acres of public land as available for livestock grazing; of which 7,800 acres (Atwell Island) would be available only for the purpose of vegetation management objectives other than producing livestock forage. Allocate the remaining 49,100 acres as unavailable for livestock grazing, including the Deer Spring, Frog Pond, South Fork of the Kern River, Irish Hills, Rusty Peak, Salinas River and Tierra Redonda areas of ecological importance and Big Pine Meadow and Rosewska Meadow(Map LG-E, in separate map packet).

Allocate newly acquired lands as available for livestock grazing, unless the purpose for the acquisition cannot be achieved under any level or management of livestock grazing.

Apply the appropriate Bakersfield FO-specific livestock grazing management guidelines (Appendix F-2) to the applicable grazing authorizations within the grazing decision area as follows:

For Allotments within San Joaquin Valley listed species habitat;

- Mulch Readiness at 500 lbs/acre and 2" green growth, or 700 lbs/acre without green growth
- Mulch Threshold at 500 lbs/acre
- with Saltbush Scrub; Dec.1-May 31 season of use or meet form class, foliage density, and reproductive uniformity criteria

For Riparian areas in;

- Poor-Fair Condition; Nov.1-May 31 season of use and apply the Central CA Guidelines for Livestock Grazing Management
- Good-Excellent Condition - Maintain current season of use and apply the Central CA Guidelines for Livestock Grazing Management as needed.

For known occupied habitats and/or known populations of;

- California jewelflower - No grazing unless in approved study or research show grazing to be beneficial.
- San Joaquin woolly threads - Apply the Central CA Guidelines for Livestock Grazing Management.
- Kern mallow - No grazing unless in approved study or research shows grazing to be beneficial.
- Hoover's woolly Star - Apply the Central CA Guidelines for Livestock Grazing Management.
- Kelso Creek monkeyflower - No grazing.
- Kern primrose sphinx moth - No grazing.
- Tehachapi slender salamander - Apply the Central CA Guidelines for Livestock Grazing Management.
- Other species that become listed - Prescription that takes into account specific species requirements.

Key Implementation Decisions

Authorize livestock grazing at the initial implementation levels (Appendix F-5). Based on existing authorizations, projected new authorizations and application of the central California and Bakersfield FO Specific livestock grazing management guidelines, forage authorized for livestock grazing within the Decision Area would total approximately 42,300 AUMs.

2.6.8 MINERALS MANAGEMENT

Leasable Minerals

Decisions

Establish the major constraint of "CSU – Bitter Creek ACEC" for the purpose of preventing or reducing disturbance to current or future refuge resources from fluid mineral development with the following stipulation language:

> *All or a portion of this lease occurs within the boundaries of the Bitter Creek ACEC and the Bitter Creek National Wildlife Refuge. No new surface disturbing activity is allowed on the lease. Furthermore, access to federal minerals within the lease will only be allowed from off-site sources not within the Bitter Creek National Wildlife Refuge boundary. This stipulation shall not be waived, however may be granted exception or modified as follows:*
>
> ***Exception:*** *The Authorized Officer may grant an exception if, after coordination with USFWS, an environmental review determines the action as proposed or conditioned would not impair the values present and is consistent with the management of the National Wildlife Refuge.*
>
> ***Modification:*** *The Authorized Officer may modify this stipulation to allow surface use on a portion or the entire lease if, after coordination with USFWS, an environmental review determines the action as proposed or*

conditioned would not impair the values present and is consistent with the management of the National Wildlife Refuge.

Identify approximately 1,013,010 acres as open to fluid mineral leasing, subject to major constraints (both CSU – Protected Species and CSU – Sensitive Species). Of this at least 3,590 acres would also be subject to a No Surface Occupancy stipulation. Additional CSU stipulations may be applied to all new leases in conjunction with the lease sale as determined appropriate and in conformance with the RMP.

Solid (Non-Energy) Leasables

Decision

Identify 897,070 acres as open to solid (non-energy) mineral leasing and development.

Locatable Minerals

Decision

Determine and designate the following areas as unsuitable for Notice and Plan of Operation levels mining operations (43 CFR 3809.10): The Dam, Wallow Rock, and Gold Fever RMZs. Segregate these areas and recommend proposal for their withdrawal from location under the General Mining Law and condition mineral entry to permit only Casual Use operations (43 CFR 3809.5).

Determine and designate the following areas as unsuitable for Casual Use, Notice, and Plan of Operation levels mining operations (43 CFR 3809.10): the Sargent Cypress Groves in the Cypress Mountain area of ecological importance and Tierra Redonda area of ecological importance. Segregate these areas and recommend proposal for their withdrawal from appropriation and all forms of mineral entry under the General Mining Law.

Allow mining operations in designated ACECs, but only in a manner that would not impair or degrade those significant resource values that led to the ACEC designation. Require a Plan of Operations in all designated ACECs. Approve the Plan of Operations only if operations would not irreparably damage those resource values for which the ACEC was designated.

Salable Minerals

Decisions

Identify 896,830 acres as open to mineral material disposal.

2.6.9 RECREATION

Decisions

Identify 188,120 acres as lands not managed within a Recreation Management Area.

Designate 160 acres (T 7 S, R 20 E, Section 2) (Map 2.14) as the Fresno River Extensive Recreation Management Area with the following recreation objective, management actions and allowable use decisions;

Within the life of the RMP the Fresno River ERMA will offer limited recreation opportunities in a rural setting, facilitating various interpretative and educational opportunities.

- Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting.

Designate 3,400 acres (Map 2.14) as the North Fork Extensive Recreation Management Area with the following recreation objective, management actions and allowable use decisions;

Throughout the life of the RMP the North Fork ERMA will offer recreation opportunities in a middle country setting, facilitating visitor participation in fishing, hunting and water-play.

- Provide public access to the North Fork ERMA at Advance and Cherry Falls.
- Maintain parking facilities at the Advance and Cherry Falls recreation sites.
- Close the Paradise recreation site, unless land ownership issues can be resolved.

Designate 123,450 acres (Maps 2.14-2.15) as the Chimney Peak Special Recreation Management Area, established with an "undeveloped" market strategy (Appendix H) serving the wider southern and central California communities. The SRMA is subdivided into three (3) Recreational Management Zones, each with the following recreation objectives, management actions and allowable use decisions (Appendix H contains a complete description of each RMZs targeted activities, experiences, benefits, and Natural Resource Recreation Settings);

Byway RMZ: In visitor assessments, 65% of respondents who participated in targeted activities report the ability to realize the targeted experiences and benefits.

Targeted Activities: Driving for Pleasure; Wildlife Viewing; Scenic Appreciation

Targeted Experiences: Enjoying closeness of family and friends; learning more about the things that are there; enjoying having easy access to natural landscapes

Targeted Benefits: *Personal:* Improved outdoor knowledge and self-confidence; enhanced awareness and understanding of nature. *Community:* Heightened sense of satisfaction with the community. *Economic:* More positive contributions to local and regional economies; increased local tourism revenues. *Environmental:* Increased awareness and protection of natural landscapes; reduced negative human impacts such as litter, vegetative trampling, and unplanned trails.

- Maintain and improve designated camping areas at Chimney Creek, Long-Valley and Walker Pass.
- Establish standard amenity fees for overnight camping at designated camping areas.
- Expand interpretive and education efforts along the Chimney Peak Byway.

PCNST RMZ: In visitor assessments, 75% of respondents who participated in targeted activities report the ability to realize the targeted experiences and benefits.

Targeted Activities: Destination Hiking; Horseback Riding/Packing; Primitive Camping

Targeted Experiences: Developing skills and abilities; enjoying the esteem of others; testing personal endurance; gaining a greater sense of self-confidence; telling others about the trip

Targeted Benefits: *Personal:* Improved mental well being; greater self-reliance; improved skills for outdoor enjoyment; a spiritual connection to the world. *Community:* Heightened sense of satisfaction with the community. *Economic:* More positive contributions to local and regional economies; increased local tourism revenues. *Environmental:* Increased awareness and protection of natural landscapes; reduced negative human impacts such as litter, vegetative trampling, and unplanned trails.

- Maintain and improve existing trail head facilities.
- Increase access to PCNST through the development of additional connector trails and trailhead facilities.

Wilderness RMZ: In visitor assessments, 50% of respondents who participated in targeted activities report the ability to realize the targeted experiences and benefits.

Targeted Activities: Hiking; Horseback Riding; Primitive Camping

Targeted Experiences: Gaining a greater sense of self-confidence; testing personal endurance; savoring the total sensory experience (sight sound, and smell) of a natural landscape; feeling good about solitude, being isolated and independent; enjoying an escape from crowds of people; nurturing personal spiritual values and growth.

Targeted Benefits: ***Personal:*** A more holistic sense of wellness; a greater sensitivity to awareness of outdoor aesthetics, nature's art and elegance; greater self-reliance; a closer relationship with the natural world. ***Community:*** Greater freedom from urban living. ***Economic:*** More positive contributions to local and regional economies; increased local tourism revenues. ***Environmental:*** Increased awareness and protection of natural landscapes; reduced negative human impacts such as litter, vegetative trampling, and unplanned trails.

Designate 23,750 acres (Maps 2.6, 2.14) as the Temblor Special Recreation Management Area, established with a "community" market strategy for local communities (Taft), nearby rural areas and the population center of Bakersfield. The SRMA is subdivided into three (2) Recreational Management Zones, each with the following recreation objectives, management actions and allowable use decisions (Appendix H contains a complete description of each RMZs targeted activities, experiences, benefits, and Natural Resource Recreation Settings);

Temblor North RMZ: In visitor assessments, 50% of respondents who participated in targeted activities report the ability to realize the targeted experiences and benefits.

Targeted Activities: OHV trail riding; hunting; target shooting

Targeted Experiences: Developing skills and abilities; testing personal endurance; enjoying risk-taking adventure; savoring the total sensory experience of a natural landscape; escaping everyday responsibilities for awhile

Targeted Benefits: *Personal:* Greater self-reliance; improved skills for outdoor enjoyment; Closer relationship with the natural world. *Community:* Providing a place near but outside the community to recreate; removing unwanted use from industrial areas; addressing health and safety concerns. *Economic:* Improved local economic stability; maintenance of community's distinctive recreation tourism market. *Environmental:* Increased awareness and protection of natural landscapes; reduced negative human impacts such as litter, vegetative trampling, and unplanned trails.

- Develop high quality trail system, including maintenance of many existing trail and creating additional recreation trails in partnership with user groups and adjacent land owners.

Urban Interface RMZ: In visitor assessments, 65% of respondents who participated in targeted activities report the ability to realize the targeted experiences and benefits.

Targeted Activities: OHV trail riding; driving for pleasure; dispersed camping

Targeted Experiences: Developing skills and abilities; testing personal endurance; enjoying risk-taking adventure; savoring the total sensory experience of a natural landscape; escaping everyday responsibilities for awhile

Targeted Benefits: *Personal:* Greater self-reliance; improved skills for outdoor enjoyment; closer relationship with the natural world. *Community:* Providing a place near but outside the community to recreate; removing unwanted use from industrial areas; addressing health and safety concerns. *Economic:* Improved local economic stability; maintenance of community's distinctive recreation tourism market. *Environmental:* Increased awareness and protection of natural landscapes; reduced negative human impacts such as litter, vegetative trampling, and unplanned trails.

- Acquire legal public access.
- Establish parking/staging area in cooperation with adjacent land owners.
- Develop high quality trail system, including maintenance of many existing trail and creating additional recreation trails in partnership with user groups and adjacent land owners.

SPECIAL DESIGNATIONS

2.6.10 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Decisions

Bitter Creek ACEC: Recommend for designation 1,026 acres of public lands and 5,095 acres of federal mineral estate; within a boundary of 20,914 acres, as the Bitter Creek ACEC (Map 2.16) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (NSO – Bitter Creek ACEC).
- Prohibit public access to lands adjacent to USFWS surface (434 acres);
- Prohibit campfires and overnight camping; and
- Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting.

Compensation Lands ACEC: Recommend for designation 283 acres of public lands and any future parcels of compensation land as the Compensation Lands ACEC (Map 2.16) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraint (CSU-Compensation Lands).
- Manage all existing and future parcels of compensation land (including lands not specifically labeled as "compensation" within the parcel) as part of the Compensation Lands ACEC;
- As appropriate, lands and minerals would remain unopened to entry under the General Mining Laws;
- Prohibit campfires and overnight camping;
- Prohibit cross country equestrian travel in areas that are not grazed by livestock;
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Require all pets to be leashed (maximum eight-foot length) at all times. Require removal of pet fecal matter by owners or handlers.

Hopper Mountain ACEC: Recommend for designation 2,027 acres of public lands and 2,947 acres of federal mineral estate; within a boundary of 4,978 acres, as the Hopper Mountain ACEC (Map 2.16) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU-Protected Species and CSU-Raptor stipulations).
- Identify portions as unavailable for livestock grazing;
- Restrict public access through temporary emergency closure or in coordination with adjacent land managers, as needed for Condor protection;
- Implement Best Management Practices to minimize impacts on condors from public use and oil field activities;
- Prohibit campfires and overnight camping; and

- Prohibit the discharge of firearms, except the legal taking of game species.

Kaweah ACEC: Recommend for designation 26,891 acres of public lands and 150 acres of federal mineral estate; within a boundary of 33,559 acres (expanding the existing Case Mountain ACEC), as the Kaweah ACEC (Map 2.16) administered with the following special management:

- Identify as open for leasing oil and gas resources, subject to moderate constraints (CSU-Raptor stipulations);
- Identify as closed to geothermal leasing;
- Identify the giant sequoia groves as unavailable for livestock grazing;
- Prohibit campfires and overnight camping at the Kaweah River recreation sites.
- Prohibit the discharge of firearms, except the legal taking of game species;
- Prohibit the casual collection of plants or their parts without BLM authorization; and
- Protect the giant sequoia groves and mixed conifer forest through implementation of fuels reduction techniques including prescribed burning and vegetation thinning, and removal of ladder fuels.

Kettleman Hills ACEC: Recommend to continue the designation of6,726 acres of public lands and 3,070 acres of federal mineral estate; within a boundary of 16,483 acres, as the Kettleman Hills ACEC (Map 2.16) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to moderate constraints (CSU-Protected Species, CSU-Sensitive Species, and CSU-Raptor stipulations);
- Identify as closed to mineral materials disposals, except for administrative purposes; and
- Prohibit campfires.

Lokern-Buena Vista ACEC: Recommend to continue the designation of11,352 acres of public lands and 4,113 acres of federal mineral estate; within a boundary of 69,474 acres (combining the existing Lokern ACEC with the expansion to include the Buena Vista Hills and Valley), as the Lokern-Buena Vista ACEC (Map 2.16) administered with the following special management:

- Identify as open for fluid mineral leasing, subject to major constraints (CSU-Protected Species and CSU-Sensitive Species stipulations;
- Identify as closed to mineral materials disposals, except for administrative purposes); and
- Prohibit campfires.

Los Osos ACEC: Recommend for designation 5 acres of public lands; within a boundary of 32 acres, as the Los Osos ACEC (Map 2.16) administered with the following special management:

- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;
- Designate as OHV Closed area.

- Prohibit mechanized use, equestrian use, and cross-country travel by pedestrians;
- Require all pets to be leashed (maximum eight-foot length) at all times. Require removal of pet fecal matter by owners or handlers
- Prohibit the discharge of firearms, except the legal taking of game species; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Piute Cypress ACEC: Recommend to continue the designation of2,305 acres of public lands and 212 acres of federal mineral estate; within a boundary of 2,544 acres (expanding the existing 1,104-acre ACEC), as the Piute Cypress ACEC (Map 2.16) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Identify as closed to mineral materials disposals, except for administrative purposes;
- Protect Piute cypress communities from livestock grazing if deemed necessary through appropriate studies;
- Prohibit campfires; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

Pt. Sal ACEC: Recommend to continue the designation of77 acres of public lands; within a boundary of 77 acres, as the Pt. Sal ACEC (Map 2.16) administered with the following special management:

- Identify as closed to fluid mineral leasing;
- Identify as unavailable for livestock grazing;
- Prohibit campfires and overnight camping;
- Designate as OHV Closed area;
- Prohibit mechanized and equestrian use;
- Prohibit the discharge of firearms and coordinate with CDFG to prohibit hunting; and
- Prohibit the casual collection of plants or their parts without BLM authorization.

2.6.11 BACK COUNTRY BYWAYS

Decisions

Continue designation of Canebrake and Long Valley Loop Roads as the Chimney Peak Backcountry Byway. Maintain Chimney Peak Backcountry Byway as a Type II Byway.

Key Implementation Decisions

Restore connectivity of the Long Valley Loop Road across private property.

2.6.12 NATIONAL TRAILS

Decisions

Designate and manage the PCNST corridor as the Pacific Crest Recreation Management Zone (RMZ), within the Chimney Peak Special Recreation Management Area (SRMA).

Recommend for designation the San Joaquin River Trail as a National Recreation Trail in coordination with other affected entities.

2.6.13 WILD AND SCENIC RIVERS

Decisions

Determine all river segments as not suitable, and not recommended for Congressional designation.

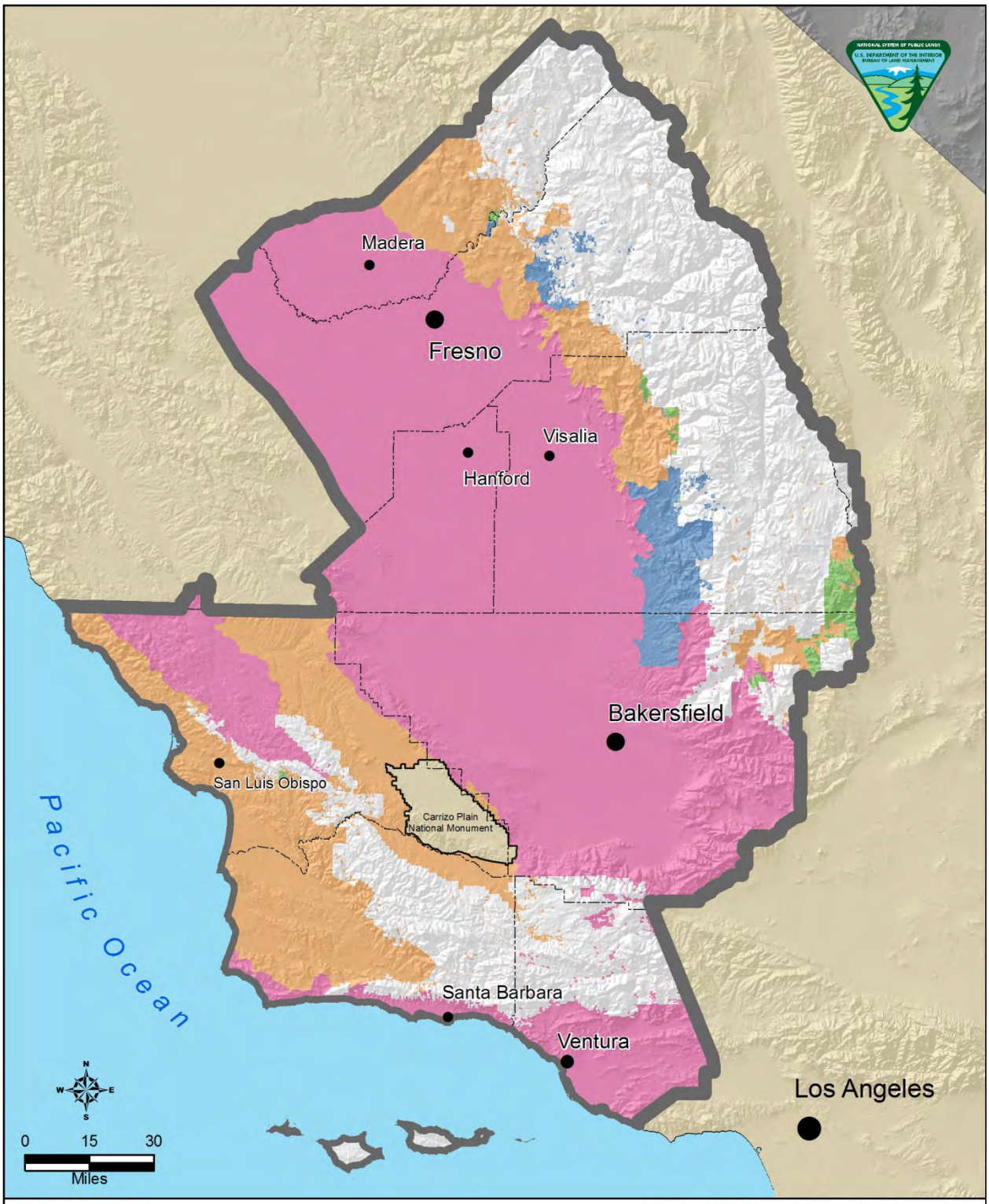
2.6.14 WILDERNESS STUDY AREAS

Objectives

If released by congress, manage WSAs commensurate with the resources values present.

Decisions

Manage all released WSAs a multiple-use dispersed public lands unless congressional release language or existing overlapping management designation dictates otherwise.



Legend

Bakersfield Field Office

County Boundary

Visual Resource Management (VRM)

Class I

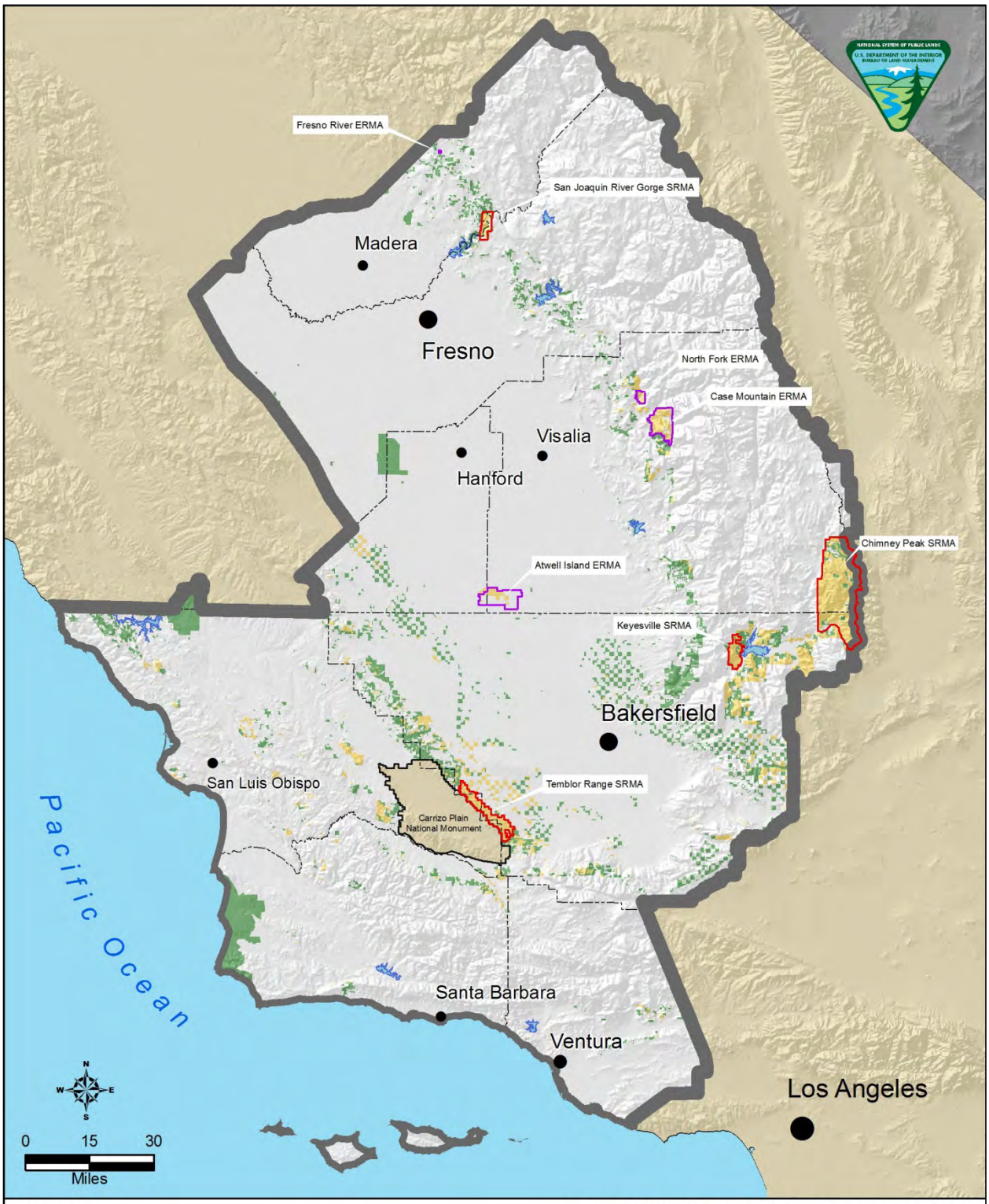
Class II

Class III

Class IV

Visual Resource Management Map
Alternative E
Bakersfield Field Office

Map 2.13



Legend

Bakersfield Field Office

County Boundary

Decision Area

Public Lands

Federal Mineral Estate

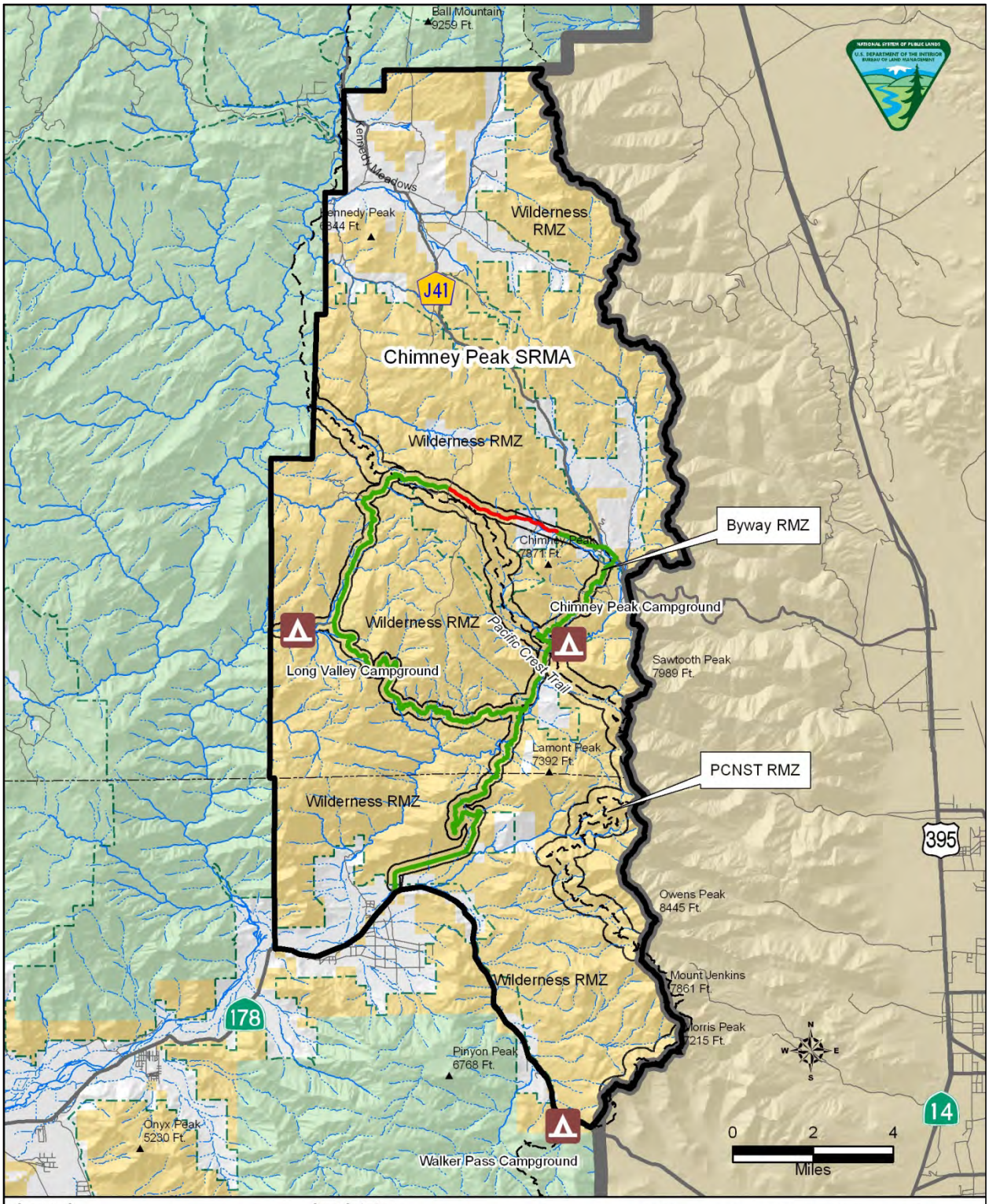
Recreation Designations

Extensive Recreation Management Areas (ERMAs)

Special Recreation Management Areas (SRMAs)

Recreation Management Area Designations
Alternative E
Bakersfield Field Office

Map 2.14

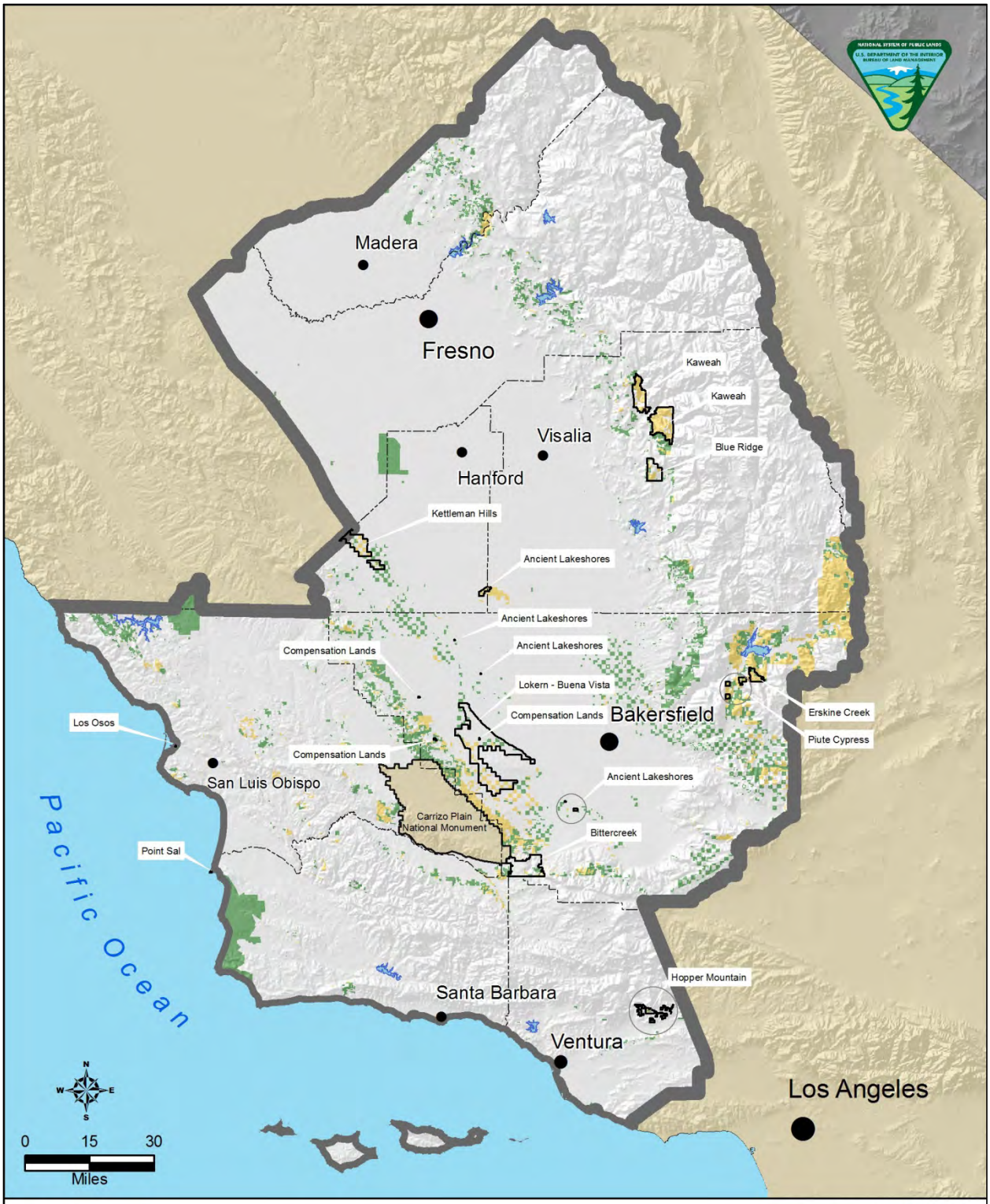


Legend
- Bakersfield Field Office
- County Boundary
- Wilderness Boundary
- Chimney Peak Back Country Byway
- Route to be restored
- Other Roads
- Pacific Crest Trail
- Recreation Management Zones

Landstatus
- Bureau of Land Management
- US Forest Service
- Private, Unclassified

Chimney Peak Back Country Byway
Chimney Peak SRMA
Bureau of Land Management
Bakersfield Field Office

Map 2.15



Legend

- Bakersfield Field Office
- County Boundary
- ACEC

Decision Area

- Public Lands
- Federal Mineral Estate

Recommended ACECs
Alternative E
Bureau of Land Management
Bakersfield Field Office

Map 2.16

2.7 ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

The following alternative was eliminated from detailed study because it did not meet the purpose and need for the proposal or was outside of the technical, legal, or policy constraints of developing a land use plan for public land resources and uses.

2.7.1 PROACTIVE LAND DISPOSAL ALTERNATIVE

Consideration was given to an alternative that would proactively market or offer parcels for sale on either an individual basis or by grouping a number of parcels and marketing them together. In this scenario, lands outside of designated areas (ACECs, Special Recreation Management Areas, Wilderness, etc.) would be actively sold or otherwise disposed of. Equity would either flow to the federal treasury, or be used to acquire additional lands within the designated areas; the number of designated areas might be reduced to allow for an even greater concentration of management.

This alternative was dismissed for several reasons. In many cases, even public lands outside of special designations have public values - the oilfields are one notable example. Many scattered parcels have been considered for disposal in the past, but were found to have unique biological, cultural, and or recreation values. Some are integral to landscape conservation strategies. It is expected that a land tenure adjustment program will continue within each of the alternatives that are carried forward. After considering the above points and weighing public comments during public scoping, this alternative was deemed to be inconsistent with RMP goals and objectives and not in the public interest.

2.7.2 PROHIBIT OIL AND GAS DEVELOPMENT

Oil and gas development is an authorized use of BLM-administered lands and encouraged by national energy policy. Therefore it would be arbitrary and inconsistent with existing laws to analyze closing the entire Decision Area to development. Moreover, that analysis would be disingenuous since extensive valid lease rights exist that could be developed regardless of changes in management in this RMP revision. The action alternatives do include minor modifications to the approach under Alternative A, specifically the application of Controlled Surface Use stipulations on areas previously subject to standard terms and conditions. The concept of placing greater restriction (i.e., more closed acres or no surface occupancy (NSO) stipulation) was considered, however, closure of lands with little or no oil and gas development potential was deemed to be unnecessary. Furthermore, a large portion of the developable area is already developed and productive.

2.7.3 RESTRICT SOLID (NON-ENERGY) LEASABLE AND SALABLE MINERAL DEVELOPMENT

Mineral developments are an authorized use of BLM-administered lands. Therefore it would be arbitrary and inconsistent with existing laws to analyze closing the entire Decision Area to development. Generally the Decision Area has limited potential for these mineral resources. The concept of placing greater restriction (i.e., more closed acres) was considered, however, closure of lands with little or no potential for these minerals was deemed to be unnecessary.

2.7.4 MODIFIED GRAZING ALTERNATIVES

Livestock grazing is an authorized use of BLM-administered lands. In development of the alternatives a greater range of acres allocated as Available/Unavailable (besides total elimination of this use) was considered, however, additional restrictions (i.e., less Available acres) were deemed to be arbitrary and unnecessary as further resource conflicts did not exist or could be addressed through site-specific use of livestock exclusions and adjustments to the permit/lease terms and conditions. In addition, less restriction of livestock grazing (i.e., more Available acres) was deemed to not adequately address the purpose and need, and issues identified in the RMP as they relate to biological resources.

2.8 COMPARISON OF ALTERNATIVES

This section (Table 2.1) provides a summary of the primary differences between the five alternatives (A through E). Due to the breadth of management prescriptions in the alternatives, this section describes only the key elements of each alternative; considered to be those that address (or are related to) a planning issue previously identified, those that may have the biggest impact on resources and those that may be considered to be controversial.

Differences between the wording of the objectives, allocations, and management actions from the main text of this chapter should not be construed to confine or redefine management contained within the complete alternatives. Some wording was modified to be more concise in the summary table. In addition acreage presented reflects the total Decision Area (surface and/or federal mineral estate) affected by the decision

Table 2.1
Summary of Alternatives

	Decision	A	B	C	D	E
	Air and Atmospheric Values					
	Design BLM program and management activities and authorize projects to meet air quality standards. Reduce emissions resulting from such actions by implementing BMPs.	-	X	X	X	X
	Prevent BLM actions from degrading Federal Class I areas including Domeland Wilderness, San Raphael Wilderness, and Sequoia and Kings Canyon National Parks.	-	X	X	X	X
	Biological Resources					
	Identified as Special Management Areas (SMAs) for biological resource management:	10 areas	-	-	-	-
	Identified areas of ecological importance, with specific management:	-	11 areas	8 area	8 areas	15 areas
	Proposed Areas of Critical Environmental Concern (ACECs) for the protection of biological resources:	11 ACECs 52,350 acres	16 ACECs 96,660 acres	20 ACECs 101,010 acres	20 ACECs 101,010 acres	12 ACECs 74,920 acres
	Identified, for fluid mineral leasing, split estate with surface managed as compensation for biological resources as:	-	CSU Compensation	Closed	Closed	CSU Compensation
	Identified, for fluid mineral leasing, Compensation Lands (ACEC) as:	-	NSO	Closed	Closed	CSU
	Recommend proposal for withdrawal from the mining laws compensation lands for biological resources regardless of surface owner.	-	X	X	X	-
	Identified, for fluid mineral leasing, Chimineas Unit of the Carrizo Ecological Reserve as:	-	CSU	Closed	Closed	CSU
	Apply various CSU stipulations to all new fluid mineral leases including CSU-Protected Species and CSU-Sensitive Species on every lease, and CSU-Critical Habitat and CSU-Raptor as appropriate.	X	X	X	X	X
	Manage Conserved Lands as reserves or corridors subject to surface disturbance limitations.	-	X	X	X	X
	Acquire biologically important lands (including compensation lands) and manage consistent with the terms of acquisition.	X	X	X	X	X
	Implement a variety of management actions (including recommendation from recovery plan) to enhance and restore habitat, including degraded riparian areas and habitat for listed species.	X	X	X	X	X
	Control and eliminate, as appropriate nonnative animals and weeds.	-	X	X	X	X

Table 2.1
Summary of Alternatives

	Decision	A	B	C	D	E
	Eliminate, relocate or redesign uses that may result in unacceptable impacts on important biological resources	-	X	X	X	X
	Cave and Karst Resources					
	Designate Granite Cave as a significant cave and assign a management class of:	-	Class III (Closed)	-	-	Class III (Closed)
	Designate Millerton Cave as a significant cave and assign a management class of:	-	Class I (Open)	(Class III) Closed	(Class III) Closed	Class I (Open)
	Designate all caves within ACECs, whose importance and relevance values identifies cave resources, as significant and assign a management class of:	-	Class II (Restricted)	Class III (Closed)	Class III (Closed)	Class II (Restricted)
	Assign an interim specific management class to as yet undiscovered caves or cave segments until a significance determination is made:	-	Class II (Restricted)	Class II (Restricted)	Class II (Restricted)	Class II (Restricted)
	Cultural Resources					
	Protect significant cultural resources through the application of a Controlled Surface Use- Cultural Resources stipulation on fluid mineral leasing, on new leases, as appropriate:	-	X	X	X	X
	Eliminate, relocate, or redesign uses following site specific NEPA that may result or have resulted in impacts on significant cultural resources	-	X	X	X	X
	Allocate evaluated cultural resources within the decision area as "scientific use" except Huasna Peak, Keyesville historic sites, Piedras Blancas Light Station, rock art sites and Walker Pass NHL.	-	X	X	X	X
	Lands with Wilderness Characteristics					
	Lands managed for wilderness characteristics:	-	6 areas 3,470 acres	13 areas 17,890 acres	13 areas 17,890 acres	0 areas 0 acres
	Paleontological Resources					
	Consider surface-disturbing activities that affect fossil-bearing geologic units identified as PFYC 4 in site specific analyses, which may include a field inventory.	-	X	X	X	X
	Minimize or prevent damage to paleontological resources through educational and interpretive outreach programs focusing use on areas of PFYC 3 or less.	-	X	X	X	X

Table 2.1
Summary of Alternatives

	Decision	A	B	C	D	E
	Soil Resources					
	Design BLM activities and authorizations to minimize impacts on soils by implementing BMPs. Specifically protecting; Serpentine Soils; Soils supporting "Biological Crusts"; and Soils highly susceptible to erosion.	-	X	X	X	X
	Visual Resources					
	Designate as VRM Class I	120,820 acres[4]	144,730 acres	163,110 acres	163,110 acres	143,300 acres
	Designate as VRM Class II	-	207,790 acres	250,060 acres	250,060 acres	36,740 acres
	Designate as VRM Class III	4,760 acres	525,860 acres	475,560 acres	475,560 acres	361,620 acres
	Designate as VRM Class IV	3,820 acres	271,380 acres	261,030 acres	261,030 acres	608,100 acres
	Water Resources					
	Design BLM activities and authorizations to meet water quality standards and maintain beneficial uses by implementing State approved BMPs (Management Measures for Polluted Runoff).	-	X	X	X	X
	Implement management actions to reduce non-point source pollution contributing to impaired water quality in any basin or segment listed as impaired.	-	X	X	X	X
	Authorize water developments or diversions on public lands only after resource objectives have been met.	-	X	X	X	X
	Wildland Fire Ecology and Management					
	Identify the South Sierra, Domeland and a portion of the Three Rivers FMU as suitable for the use of wildland fire for resource benefit.	-	X	X	X	X
	Use a decision support process to analyze and document fire suppression strategies and tactics.	-	X	X	X	X
	Use Minimum Impact Suppression Tactics (MIST) or other modified suppression techniques when suppressing fires in sensitive areas	-	X	X	X	X
	Participate in local Fire Safe Councils or other community organizations to develop and implement collaborative fire mitigation and prevention strategies with communities at risk, and coordinate on the preparation of Community Wildfire Protection Plans.	-	X	X	X	X

[4] Established by BLM Policy and Guidance for Wilderness and ONA management

Table 2.1
Summary of Alternatives

	Decision	A	B	C	D	E
	Comprehensive Trail and Travel Management					
	Designate as OHV Open area:	0 acres	0 acres	0 acres	0 acres	70 acres
	Designate as OHV Closed area:	139,490 acres	142,940 acres	166,300 acres	166,300 acres	136,280 acres
	Designate as OHV Limited Use area:	264,590 acres	261,140 acres	237,780 acres	237,780 acres	264,560 acres
	Routes designated Motorized:	1895 miles	770 miles	656 miles	656 miles	1683 miles
	Routes designated Non-Motorized:	0 miles	31 miles	39 miles	39 miles	31 miles
	Routes designated Non-Mechanized:	41 miles	45 miles	45 miles	45 miles	45 miles
	Routes designated Authorized:	0 miles	783 miles	617 miles	617 miles	112 miles
	Routes designated Closed:	0 miles	308 miles	580 miles	580 miles	65 miles
	Lands and Realty					
	Identify as Rights-of-Way avoidance areas:	-	128,000 acres	157,920 acres	157,920 acres	96,080 acres
	Identify as Rights-of-Way exclusion areas:	-	121,300 acres	151,410 acres	151,410 acres	121,300 acres
	Livestock Grazing					
	Allocate as available for livestock grazing:	314,600 acres	328,700 acres	322,200 acres	0 acres	345,800 acres
	Allocate as available for livestock grazing only for the purpose of vegetation management:	0 acres	7,800 acres	7,800 acres	0 acres	7,800 acres
	Allocate as unavailable for livestock grazing:	61,200 acres	66,200 acres	72,700 acres	402,800 acres	49,100 acres
	Unallocated for livestock grazing:	26,900 acres	0 acres	0 acres	0 acres	0 acres
	Estimated annual AUMs	36,700 AUMs	39,100 AUMs	36,200 AUMs	0 AUMs	41,400 AUMs
	Minerals					
	Open to fluid mineral leasing subject to standard terms and conditions:	304,080 acres	0 acres	0 acres	0 acres	0 acres
	Open to fluid mineral leasing subject to moderate constraints:	0 acres	0 acres	0 acres	0 acres	0 acres
	Open to fluid mineral leasing subject to major constraints:	707,280 acres	999,950 acres	966,160 acres	966,160 acres	1,013,010acres
	Open with a No Surface Occupancy Stipulation:	4,910 acres	3,880 acres	8,400 acres	8,400 acres	3,590 acres
	Closed to fluid mineral leasing:	150,850 acres	162,260 acres	196,050 acres	196,050 acres	149,200 acres
	Closed to geothermal leasing:	169,350 acres	188,700 acres	209,310 acres	209,310 acres	175,640 acres
	Open to Solid (non-energy) mineral leasing:	817,690 acres	818,330 acres	0 acres	0 acres	897,070 acres
	Open to mineral material disposal:	817,690 acres	818,090 acres	781,120 acres	781,120 acres	896,830 acres
	Recommend proposal for withdrawal from the mining laws:	10,130 acres	29,050 acres	62,670 acres	62,670 acres	17,770 acres
	Recreation and Visitor Services					
	Special Recreation Management Areas (SRMAs) designations:	1 SRMAs 4,760 acres	3 SRMAs 45,240 acres	2 SRMAs 21, 490 acres	2 SRMAs 21, 490 acres	4 SRMAs 168,690 acres
	Extensive Recreation Management Areas (ERMAs) designations:	2 ERMAs 399,320 acres	4 ERMAs 167,320 acres	4 ERMAs 190,910 acres	4 ERMAs 190,910 acres	4 ERMAs 47,270

Table 2.1
Summary of Alternatives

	Decision	A	B	C	D	E
	Total area not designated as Recreation Management Areas (RMAs):	0 acres	191,520 acres	191,680 acres	191,680 acres	188,120 acres
	Total area open to public access:	404,080 acres	392,660 acres	380,680 acres	380,680 acres	404,080 acres
	Total area open to overnight camping:	400,230 acres	361,240 acres	328,890 acres	328,890 acres	383,720 acres
	Total area open to unrestricted (trails and cross country) equestrian use:	402,000 acres	358,530 acres	335,050 acres	335,050 acres	381,370 acres
	Total area open to the discharge of firearms:	276,141 acres	204,950 acres	167,970 acres	167,970 acres	229,280 acres
	Total area open recommended to remain open to hunting:	404,080 acres	373,140 acres	349,480 acres	349,480 acres	397,070 acres
	Areas of Critical Environmental Concern (ACECs)					
	Propose for designation as ACEC:	13 ACECs 59,808 acres	17 ACECs 99,490 acres	22 ACECs 108,248acres	22 ACECs 108,248 acres	12 ACECs 74,918 acres
	Ancient Lakeshores ACEC – Biological & Cultural Resources	-	1,985 acres	1,985 acres	1,985 acres	1,985 acres
	Alkali Sink ACEC - Biological & Cultural Resources	402 acres	*[5]	*	*	*
	Bitter Creek ACEC – Biological Resources	-	6,121 acres	6,121 acres	6,121 acres	6,121 acres
	Blue Ridge ACEC - Biological Resources	4,758 acres	4,749 acres	4,749 acres	4,749 acres	4,749 acres
	Case Mountain ACEC – Biological Resources	26,468 acres	*[6]	*	*	*
	Chico Martinez ACEC – Cultural Resources	4,607acres	-	4,608 acres	4,608 acres	-
	Compensation Lands ACEC – Biological Resources	-	283 acres	283 acres	283 acres	283 acres
	Cypress Mountain ACEC – Biological Resources	1,080 acres	1,080 acres	1,080 acres	1,080 acres	-
	Cyrus Canyon ACEC – Biological Resources	-	5,374 acres	5,374 acres	5,374 acres	-
	Erskine Creek ACEC - Cave/Karst & Biological Resources	-	4,019 acres	4,019 acres	4,019 acres	4,019 acres
	Goose Lake ACEC - Biological & Cultural Resources	40 acres	*	*	*	*
	Granite Cave ACEC – Cultural Resources	-	-	42 acres	42 acres	-
	Hopper Mountain ACEC – Biological Resources	-	4,974 acres	4,974 acres	4,974 acres	4,974 acres
	Horse Canyon ACEC – Cultural Resources	2,830 acres	2,830 acres	2,830 acres	2,830 acres	-
	Irish Hills ACEC – Biological Resources	-	-	1,654 acres	1,654 acres	-
	Kaweah ACEC – Cave/Karst & Biological Resources	-	27,041 acres	27,041 acres	27,041 acres	27,041 acres
	Kettleman Hills ACEC – Biological Resources	9,794 acres	13,695 acres	13,695 acres	13,695 acres	9,796 acres
	Lokern ACEC – Biological Resource	6,632 acres	*[7]	*	*	*
	Lokern-Buena Vista ACEC – Biological Resources	-	15,465 acres	15,465 acres	15,465 acres	15,465 acres
	Los Osos ACEC – Biological & Cultural Resources	-	5 acres	5 acres	5 acres	5 acres
	Piute Cypress ACEC – Biological Resources	1,104 acres	2,517 acres	2,517 acres	2,517 acres	2,517 acres

[5] Incorporated into the Ancient Lakeshores ACEC
[6] Incorporated into the Kaweah ACEC
[7] Incorporated into the Lokern-Buena Vista ACEC

Table 2.1
Summary of Alternatives

	Decision	A	B	C	D	E
	Pt. Sal ACEC (acres) - Biological & Cultural Resources	77 acres	77 acres	77 acres	77 acres	77 acres
	Rusty Peak ACEC – Biological Resources	-	-	787 acres	787 acres	-
	Salinas River ACEC – Biological Resources	1,604 acres	-	1,604 acres	1,604 acres	-
	Tierra Redonda ACEC – Biological & Paleontological Resources	412 acres	412 acres	412 acres	412 acres	-
	Upper Cuyama Valley ACEC – Biological Resources	-	8,935 acres	8,935 acres	8,935 acres	-
	Back Country Byways					
	Designate Long Valley Loop and Canebrake Roads as the Chimney Creek Back Country Byway:	X	-	-	-	X
	National Trails					
	Recommend the San Joaquin River Trail for designation as a National Recreation Trail:	-	X	-	-	X
	Wild and Scenic Rivers					
	Determine as suitable for congressional designation in the National Wild and Scenic River System (NWSRS):	0 river segments	2 river segments	8 river segments	8 river segments	0 river segments
	Establish management corridor for suitable river segments affecting:	-	3,880 acres	12,220 acres	12,220 acres	0 acres
	Wilderness Study Areas (WSAs)					
	Manage WSAs, if released by congress, for wilderness characteristics:	-	6 areas 1,880 acres	11 areas 21,140 acres	11 areas 21,140 acres	0 areas 0 acres
	Manage WSAs, if released by congress as part of an ACEC:	-	3 areas 18,650 acres	0 areas 0 acres	0 areas 0 acres	0 areas 0 acres
	Manage WSAs, if released by congress as multiple-use dispersed land:	-	2 areas 610 acres	0 areas 0 acres	0 areas 0 acres	11 areas 21,140 acres

2.9 COMPARISON OF IMPACTS

The Summary of Environmental Consequences by Alternative (Table 2.2) summarizes potential impacts under alternatives A through E. Due to the breadth of management prescriptions and range of resulting impacts, this section describes only the key impacts of each alternative; considered to be those that address (or are related to) a planning issue previously identified, those that may have the biggest impact on resources and those that may be considered to be controversial.

Where appropriate, the table quantifies (e.g., more acreage implies more impact, either beneficial or adverse) potential impacts anticipated from BLM-authorized actions or qualitative descriptions comparing the impact potential among the alternatives (e.g., highest potential, lowest potential, or moderate potential) with brief descriptions of the qualifying rational. This summary does not present the cumulative impacts occurring from non-BLM actions.

The environmental consequences of alternatives are not anticipated to exceed known legal thresholds or standards over the life of this RMP. Standard practices, BMPs, and guidelines for surface-disturbing activities are built into each alternative to avoid and minimize potential impacts (Appendix L). The BLM would consider mitigation of residual impacts during subsequent implementation-level projects and any associated environmental analyses performed at that time. All alternatives include reclamation of surface disturbance to reduce long-term impacts.

Table 2.2
Summary of Environmental Consequences by Alternative

Summary of Impact	A	B	C	D	E
Air and Atmospheric Values					
Potential change in emission trends for Ozone	No Change	Slight Increase	Slight Increase	Slight Increase	Slight Increase
Potential change in emission trends for PM10	No Change	Slight Decrease	Decrease	Greatest Decrease	Very Slight Decrease
Potential change in emission trends for PM2.5	No Change	Slight Increase	Slight Increase	Slight Increase	Slight Increase
Biological Resources					
Number of special status species afforded protection through special management within ACECs from a total of 328 species.	93 species (28%)	83 species (25%)	124 species (38%)	124 species (38%)	57 species (17%)
Number (percent) of federally listed species known or with potential to occur in the Decision Area, afforded protection through special management within ACECs from a total of 53 species.	14 species (27%)	19 species (36%)	23 species (43%)	23 species (43%)	16 species (30%)
Percent of motorized routes available to the public potentially resulting in habitat loss and disturbance to wildlife in areas specifically identified for biological resources management (including Conserved Lands).	95%*	88%	80%	80%	95%
Cave and Karst Resources					
Potential for loss or diminishment of cave resources	Highest potential	Low potential	Lowest potential	Lowest potential	Low potential
Cultural Resources					
Area (percent of Decision Area) with reduced potential for degradation of factors contributing to eligibility as a result of surface disturbance from BLM actions:	13%	14%	18%	18%	12%
Number of recorded sites (percent of known) at risk from disturbance related to Motorized access (direct destruction, accessibility for looting etc.):	439 (63%)	134 (19%)	119 (17%)	119 (17%)	344 (49%)
Number of recorded sites (percent of known) protected from disturbance related to Motorized access (i.e., in proximity of closed routes):	0 (0%)	58 (8%)	165 (24%)	165 (24%)	1 (<1%)
Potential for destruction of sites and diminishment of TCP values at Horse Canyon:	High potential	Low potential	Lowest potential	Lowest potential	Highest potential
Lands with Wilderness Characteristics					
Protection of lands with wilderness characteristics through prescriptive management on (percent of lands with wilderness characteristics):	0% 0 acres	21% 3,470 acres	100% + 17,890 acres	100% + 17,890 acres	0% 0 acres

Table 2.2
Summary of Environmental Consequences by Alternative

Summary of Impact	A	B	C	D	E
Protection of Lands with wilderness characteristics through overlapping designations e.g., ACECs, Backcountry RMZs (percent of lands with wilderness characteristics):	0% 0 acres	24% 3,820 acres	Some overlapping designations with more stringent management	Some overlapping designations with more stringent management	36% 5,830 acres
Lands at risk of loss of wilderness characteristics (percent of lands with wilderness characteristics):	100% 16,190 acres	55% 8,900 acres	0% 0 acres	0% 0 acres	64% 10,360 acres
Paleontological Resources					
Areas of PFYC 4 (acres) protected from surface disturbance impacts resulting from BLM authorizations	2 areas (1,050 acres)	3 areas (14,710 acres)	4 areas (16,670 acres)	4 areas (16,670 acres	2 areas (13,820 acres)
Soil Resources					
Area (acres/percent of Decision Area) with reduced potential for degradation of soils as a result of surface disturbance associated with BLM authorizations:	155,760 acres 39%	166,140 acres 41%	204,450 acres 51%	204,450 acres 51%	152,790 acres 38%
Portion of motorized route network crossing in areas susceptible to erosion potentially resulting in accelerated erosion rates.	3%	1%	1%	6%	3%
Visual Resources					
VRI Class I preserved (VRM Class I):	81%	82%	84%	84%	81%
VRI Class II preserved or retained (VRM Class I & II):	0%	85%	98%	98%	47%
VRI Class III partially retained (VRM Class III)	0%	61%	31%	31%	84%
VRI Class IV with major modification (VRM Class IV)	0%	32%	30%	30%	70%
Water Resources					
Area (percent of Decision Area) indirectly maintaining or improving of water quality resulting from protective prescriptive applied through area designations.	225,120 acres (56%)	301,140 acres (75%)	322,110 acres (80%)	322,110 acres (80%)	279,650 acres (69%)
Wildland Fire Ecology and Management					
Increased incidence of human-caused fires as a result of increased recreational visitation	Moderate potential	Moderate potential	Lowest potential	Low potential	Highest potential
Improvement in fire regime condition class as a result of vegetation management.	Lowest potential	Moderate potential	High potential	Highest potential	Low potential
Comprehensive Trail and Travel Management					
Change (percent) to areas of travel opportunity and potential for travel network to extend for motorized and mechanized uses:	No change	4% decrease in area	6% decrease in area	6% decrease in area	1% increase in area
Change (percent) to motorized route opportunities for all users:	50% increase	18% decrease	30% decrease	30% decrease	43% increase

Table 2.2
Summary of Environmental Consequences by Alternative

Summary of Impact	A	B	C	D	E
Lands and Realty					
Probability of a net loss of public lands and federal mineral estate as a result of land tenure adjustments (acquisitions and disposals) based on criteria in the RMP:	High probability (99% available for disposal)	Low probability (greater than 99% retained)	Low probability (greater than 99% retained)	Low probability (greater than 99% retained)	Low probability (greater than 99% retained)
Loss of opportunity to establish new rights-of-way (increased percent of areas with ROW restrictions [avoidance and exclusion areas])	0% increase in restricted areas	62% increase in restricted areas	77% increase in restricted areas	77% increase in restricted areas	55% increase in restricted areas
Loss of opportunity for utility scale renewable energy projects in areas with potential for development beyond standard ROW exclusion areas.	No additional exclusions for renewable energy projects	25% of area with potential excluded	60% of area with potential excluded	60% of area with potential excluded	No additional exclusions for renewable energy projects
Livestock Grazing					
Change (percent) to the opportunity to utilize public lands for grazing operations:	No change	6% increase	4% increase	100% decrease	10% increase
Potential grazing opportunity (AUMs) [8]	37,600 AUMs	40,000 AUMs	37,800 AUMs	900 AUMs	42,300 AUMs
Minerals Management					
Area with potential, available for Oil & Gas development (percent of area with potential closed):	154,760 acres (2%)	154,760 acres (2%)	142,890 acres (10%)	142,890 acres (10%)	156,400 acres (1%)
Area with potential, available for Solid (non-energy) leasable development (percent of area with potential closed):	34,590 acres (1%)	34,340 acres (2%)	0 acres (100%)	0 acres (100%)	34,760 acres (1%)
Area with potential, available for locatable mineral development (percent of area with potential withdrawn):	236,360 acres (8%)	228,780 acres (10%)	222,180 acres (13%)	222,180 acres (13%)	236,080 acres (8%)
Area with potential, available for salable mineral development (percent of area with potential closed):	43,330 acres (16%)	30,300 acres (41%)	30,170 acres (41%)	30,170 acres (41%)	33,700 acres (34%)
Recreation and Visitor Services					
Area (percent of Decision Area) lost to all public opportunities for recreation (i.e., permanent public closure).	0 acres (0%)	11,000 acres (3%)	23,000 acres (6%)	23,000 acres (6%)	0 acres (0%)
Area (percent of Decision Area) lost to camping opportunities.	2,890 acres (<1%)	42,840 acres (11%)	75,190 acres (19%)	75,190 acres (19%)	20,360 acres (5%)
Area (percent of Decision Area) lost to unrestricted equestrian activities.	450 acres (<1%)	45,550 acres (11%)	69,030 acres (17%)	69,030 acres (17%)	22,710 acres (6%)

[8] These figures include 900 AUMs authorized by other RMPs.

Table 2.2
Summary of Environmental Consequences by Alternative

Summary of Impact	A	B	C	D	E
Area (percent of Decision Area) lost to recreation shooting sports (e.g., Target Shooting, paintball etc.)	127,930 acres (32%)	199,130 acres (49%)	236,110 acres (58%)	236,110 acres (58%)	174,800 acres (43%)
Areas of Critical Environmental Concern (ACECs)					
Potential for degradation and loss of relevant values on (number of areas, acres):	4 20,940 acres	0 0 acres	0 0 acres	0 0 acres	1 2,830 acres
Back Country Byways					
Change to the visual and social values, and administrative setting of the Chimney Peak Backcountry Byway	Values and settings maintained	Special designation revoked	Special designation revoked	Special designation revoked	Values and settings enhanced, potential increase in use
National Trails					
Potential for visual and social values to be diminished along trails.	Highest potential	Lowest potential	Lowest potential	Lowest potential	Low potential
Wild and Scenic Rivers					
Free flowing characteristics and ORVs protected by recommendation for inclusion in the NWSRS on (number and miles of river segment):	0 river segments 0 miles	2 river segments 8 miles	8 river segments 31 miles	8 river segments 31 miles	0 river segments 0 miles
ORVs (river corridor acres) protected by overlapping designations (ACECs, areas of ecological importance, etc.):	12,220 acres	12,220 acres	12,220 acres	12,220 acres	12,220 acres
Wilderness Study Areas (WSAs)					
Continued protection, if released by congress, of wilderness values through overlapping designations or management direction on (percent of lands currently WSAs):	54% 11,470 acres	97% 20,530 acres	100% 21,140 acres	100% 21,140 acres	88% 18,650 acres
Social and Economic Resources					
Contribution to local employment opportunities and income as a result of BLM actions and authorizations:	503 jobs $19.7 million in labor income	491 jobs $19 million in labor income	468 jobs $17.8 million in labor income	462 jobs $17.6 million in labor income	503 jobs $19.4 million in labor income
Potential to disproportionately impact minority or low income populations:	Lowest	Low	Low	Moderate	Lowest
Public Safety and Health					
Risks to public health from industrialized areas reduced from (acres)	0 acres	10,000 acres	10,000 acres	10,000 acres	0 acres
Risks to public health from travel across serpentine soils remain from routes (miles)	6 miles	5 miles	5 miles	5 miles	6 miles

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CHAPTER THREE

CHAPTER THREE – AFFECTED ENVIRONMENT
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INTRODUCTION

This chapter describes existing conditions for Bureau of Land Management (BLM) resource programs, resource uses, special designations, and the social and economic environment in the Bakersfield FO Planning Area. The description of the affected environment uses the best and most recent data available. This chapter does not, however, provide detail about environmental components that would not be affected or that are not essential to the understanding or resolution of planning issues.

In addition to describing existing conditions, where appropriate, this chapter identifies management challenges for resource programs and resource uses within the Decision Area. The BLM reviewed current management and combined with the scoping process for revising the 1997 Caliente RMP (existing plan) identified these management challenges. By describing existing conditions for resource programs in the Planning Area, this chapter serves as the baseline against which Chapter 4 analyzes potential impacts of the alternatives.

OVERVIEW OF PLANNING AREA

The Planning Area encompasses about 17 million acres throughout Kings, San Luis Obispo, Santa Barbara, Tulare, Ventura, Madera, eastern Fresno, and western Kern Counties. Stretching from the coastal islands in the Pacific Ocean across the Central Valley to the crest of the Sierra Nevada Range, public lands are scattered across the Planning Area in numerous small parcels. With a variety of settings and landforms, this is a region of diverse topography and landscapes, and extraordinary biodiversity. Elevations range from sea level to more than 14,500 feet at Mount Whitney. The BLM Bakersfield FO is directly responsible for the management of approximately 400,000 acres of public land and 1.2 million acres of Federal mineral estate (i.e., the Decision Area).

The Planning Area is comprised of three bioregions; the Central Coast, the San Joaquin Valley, and Sierra, each with their own characteristic land forms, vegetative communities, wildlife, and public lands uses. The Central Coast bioregion features coastal scenery, farmland, and vineyards and a climate that is mild, seasonally moist, and sometimes foggy. The San Joaquin Valley bioregion features a large expanse of valley floor, riddled with dry washes stemming from the foothills of the Coastal and Sierra ranges. The weather is hot and dry in summer, with long sunny days, whereas winters are moist and often blanketed with heavy fog. The Sierra bioregion is a vast and rugged mountainous area and includes forests, lakes, and rivers that generate much of the state's water supply. The climate varies with the elevation, offering cold snowy winters and cool summers at higher elevations and rainy winters and mild summers in the foothills.

A significant portion of the biologic diversity of California resides within the boundaries of the Bakersfield FO. For example, of the 130 federally listed animal species in California, over a third is

found within the Planning Area and 120 different vegetation series are known or have the probability of being found on lands within the Decision Area.

Historic and prehistoric use of the region have led to wide variety of cultural resources; diverse in nature and widely distributed across the Planning Area. Native American occupation of the Planning Area extends as far back as at least 12,000 years ago as evidenced by typical prehistoric archaeological assemblages, such as, lithic scatters, bedrock milling features, shell middens, and pictograph and petroglyph sites, being common throughout the area. The historic use of the region has focuses on mineral and agricultural development, remnants of which survive in place on several areas of public land.

Over 20 million people live within a few-hour drive of public lands within the Planning Area. As both a result of demand and diversity in land forms and ecological communities present, a variety of recreational uses occur, ranging from primitive dispersed activities to resource-dependent intensive recreation opportunities. Activities include equestrian use, camping, hiking, nature study, photography, off-highway vehicle use, target shooting, and hunting. Some use of the public land is, however limited by the lack of legal public access across adjoining private lands.

RESOURCES

3.1 AIR AND ATMOSPHERIC VALUES

This section provides a summary of air quality, climate, and meteorology in the Planning Area, and addresses climate change, including a discussion on Greenhouse Gas Emissions (GHG). Additional background information is provided in the Air Resources Appendix (Appendix A). BLM manages air resources to comply with applicable Federal laws and regulations, and State and local air quality rules. Federal law requires BLM actions to conform to applicable State Implementation Plans (SIPs). BLM further manages air resources by designing projects to minimize emissions in compliance with local air rules. Design features may include implementation of Best Available Control Measures (BACM), Maximum Available Control Technology (MACT), and Best Management Practices (BMP) (refer to Appendix A).

Existing sources of emissions within the Planning Area include vehicle and equipment use, energy and mineral development, construction (residential, non-residential, and industrial), rights-of-way (such as power lines, pipelines (fluid mineral and water)), roads, communication sites, and other facilities), fuels management (prescribed fire and mechanical vegetation treatment), resource road maintenance, livestock grazing, agriculture, and recreational use of public lands. Generally, surface disturbing actions generate fugitive dust while vehicle and equipment use results in emissions, both which impact air quality. The largest BLM emission rates are associated with energy and mineral development and recreational vehicle travel on public lands, which represent a very small percentage of pollutant emissions in the Planning Area (see Figure 3.1-2).

Activities directly undertaken by the BLM or requiring its approval must comply with applicable federal, state, and local air quality regulations and meet federal air quality standards. BLM management activities and programs are broad, with many potential sources of emissions that are minimal and little affected by the planning decisions. These would include ongoing administrative uses (such as facility operation, fleet vehicle use, etc.) that although create emissions, are at levels that are presumed to conform to federal standards. Administrative activities are not further discussed in this plan. Management actions and programs that may contribute levels of emissions of concern are distilled into four broad categories for analysis purposes. For example, all vehicle use on unpaved roads can create particulate emissions; rather than separating these by class, such as recreation, non-recreation, administrative, etc., they are all lumped under the "vehicle use" category below. The four emission categories analyzed in this plan are as follows:

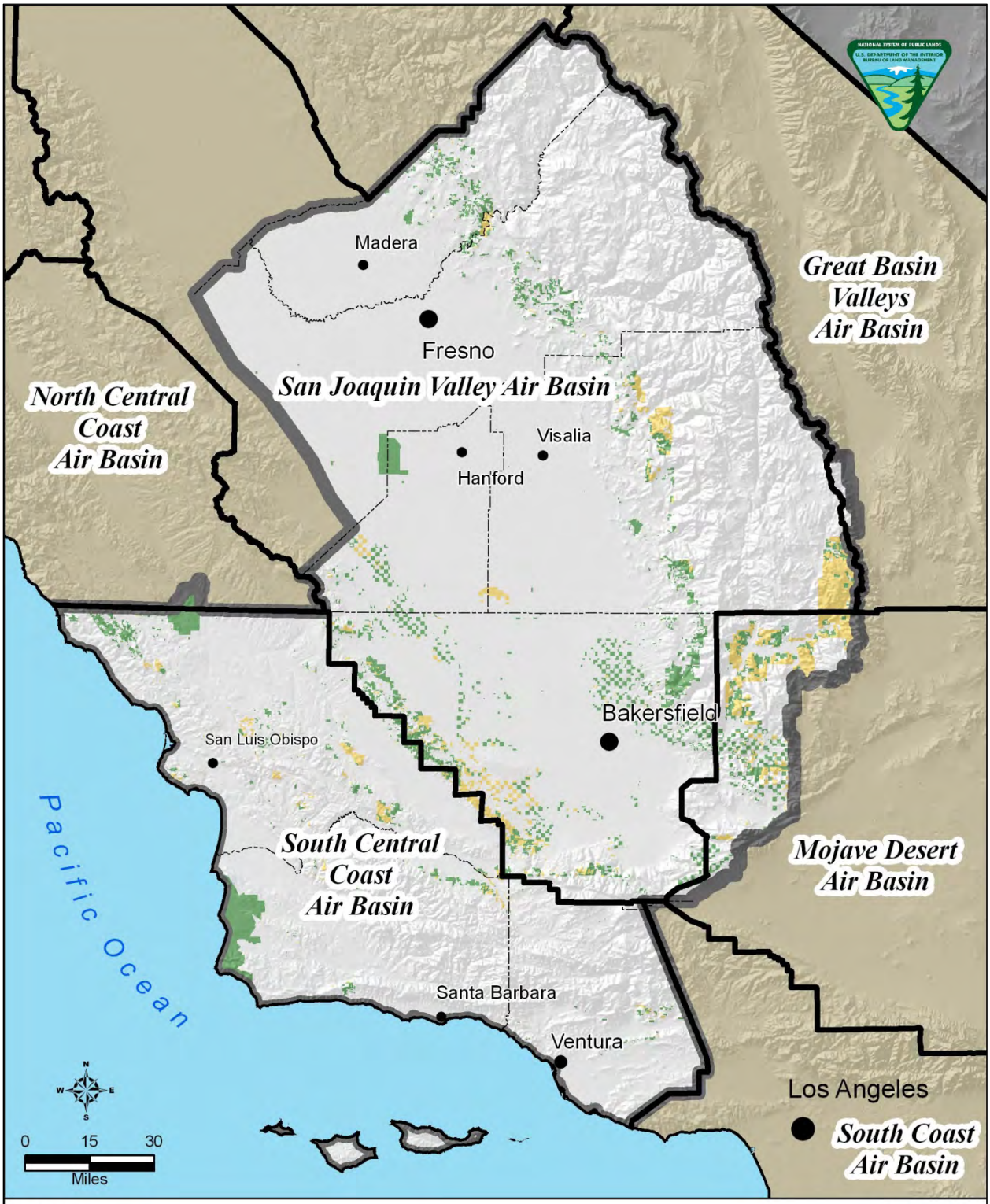
- Vehicle use on unpaved roads (including OHV use and wind erosion from disturbed surfaces);
- Fire management (including wildland fire, managed fire and prescribed fire);
- Energy development (oil and gas), mineral extraction, and mining operations; and,
- Livestock grazing activity.

3.1.1 AIR QUALITY

This RMP addresses air quality within the Planning Area, focusing on BLM activities and programs in the Decision Area that potentially effect air quality and result in changes from the existing situation. The Planning Area is divided into six air basins that are generally grouped by similar geographic and meteorological conditions. These include the San Joaquin Valley Air Basin, the Mojave Desert Air Basin (eastern Kern County part), South Central Coast Air Basin, and small portions of the North Central Coast Air Basin (Monterey County) and the Great Basin Valley Air Basin (Inyo County) (Map 3.1). The majority of the Decision Area occurs within the San Joaquin Valley Air Basin and the eastern portion of Kern County, in the Mojave Desert Air Basin. In Monterey County, BLM manages the federal mineral estate under Camp Roberts. Surface management of lands in the Inyo County portion of the Planning Area is the responsibility of the U.S. Forest Service. Regulatory oversight authority for air quality matters rest at the local level with various air districts (see Table.3.1-1.), at the state level with the California Air Resources Board (CARB), and at the federal level with the U.S. Environmental Protection Agency (EPA), Region IX. The BLM has air program responsibilities through its permitting programs and Clean Air Act (CAA) requirements to analyze all actions for conformity to air quality plans. The BLM is further committed to comply with the procedures outlined in a recent Air Quality MOU (effective June 23, 2011) with the USDA, the DOI and the EPA; this MOU outlines a common framework for analyzing and mitigating impacts to air quality and AQRVs associated with Federal oil and gas decisions through the NEPA process.

Table 3.1-1
Air Basins, Counties and Governing Air Districts within the Planning Area

Air Basin	Counties within Air Basin	Air Pollution Control Districts (APCD)
San Joaquin Valley Air Basin	Kern County Kings County Fresno County Madera County	San Joaquin Valley Unified APCD
South Central Coast Air Basin	Ventura County Santa Barbara County San Luis Obispo County	Ventura County APCD Santa Barbara County APCD San Luis Obispo APCD
Mojave Desert Air Basin	Kern County (eastern Kern portion only)	East Kern APCD
North Central Coast Air Basin	Monterey County (portion)	Monterey Bay Unified APCD
Great Basin Valleys Air Basin	Inyo County (portion)	Great Basin Unified APCD



Legend

- Bakersfield Field Office
- County Boundary
- Air Basins

Decision Area

- Public Lands
- Federal Mineral Estate

Air Basins
Bureau of Land Management
Bakersfield Field Office

Map 3.1

The federal Clean Air Act (CAA), as amended, and the California Clean Air Act (CCAA) contain the primary provisions relating to air quality. Provisions of the federal CAA that apply to BLM actions include the National Ambient Air Quality Standards (NAAQS), nonattainment area designation, the development of state implementation plans (SIPs), prevention of significant deterioration (PSD), air toxics, and federal conformity. The U.S. EPA, CARB, and regional air districts have issued rules to implement federal and state Clean Air Acts.

Criteria pollutants are defined as those pollutants for which the federal and state governments have established ambient air quality standards for concentrations in order to protect public health. Under the federal CAA, the U.S. EPA has established NAAQS for seven criteria pollutants: ozone, respirable particulate matter (PM10), fine particulate matter (PM2.5), carbon monoxide, nitrogen dioxide, lead, and sulfur dioxide. California has established state Ambient Air Quality Standards for the same criteria pollutants, plus an additional 3 pollutants (visibility reducing particulates, sulfates, and hydrogen sulfide). The state ambient air quality standards for California are stricter than the federal standards and are listed in Table 3.1-2. Under State law, designations are made by pollutant, rather than by averaging time. Although more stringent, the State standards have no specific dates to attain, unlike federal standards. Several of these criteria pollutants currently meet NAAQS; BLM sources of attainment pollutant emissions are minor and therefore will not be analyzed in Chapter 4 (see Appendix A).

Criteria pollutant concentrations are measured at a number of compliance monitoring networks throughout the State. Emissions inventory data from these monitoring networks are utilized to determine if areas meet federal standards (NAAQS). These standards are used to classify all areas as to whether they meet (attain) or exceed (nonattainment) the thresholds established for these pollutants. Based on the EPA 2010 designations, the primary pollutants of concern in the Planning Area are Ozone, PM 10, and PM 2.5 (Table 3.1-3.). The remaining criteria pollutants are either unclassified, or in attainment with the NAAQS; refer to the Air Resources Appendix (Appendix A) for additional detail.

Table 3.1.3 indicates the federal 2010 air quality designations within the Planning Area. Standards for 8-hour ozone & PM10 use a nonattainment area classification system based on severity (marginal, moderate, serious, severe, and extreme). Areas with more severe air quality problems have later attainment dates and progressively more requirements; marginal areas have the least amount of time to attain the standard whereas extreme areas have the most time. The PM2.5 standard does not use a classification system, which simplifies the attainment year and planning requirements. Areas that are classified as nonattainment by the EPA are required to prepare and implement a State Implementation Plan (SIP) that identifies and quantifies sources of emissions and presents a comprehensive strategy to control and reduce locally generated emissions.

Table 3.1-2
Federal and State Ambient Air Quality Standards (AAQS)

Pollutant	Averaging Time	Federal Standard	California Standard
Ozone (O_3)	8 Hour	0.075 ppm (147 μg/m^3)[a]	0.070 ppm (137 μg/m^3)
	1 Hour	—	0.09 ppm (180 μg/m^3)
Particulate Matter (PM10)	Annual	—	20 μg/m^3
	24 Hour	150 μg/m^3	50 μg/m^3
Fine Particulate Matter (PM2.5)	Annual	15 μg/m^3	12 μg/m^3
	24 Hour	35 μg/m^3	No Separate State Standard
Carbon Monoxide (CO)	8 Hour	9 ppm (10 mg/m^3)	9.0 ppm (10 mg/m^3)
	1 Hour	35 ppm (40 mg/m^3)	20 ppm (23 mg/m^3)
Nitrogen Dioxide (NO_2)	Annual	53 ppb (100 μg/m^3)[b]	0.03 ppm (57 μg/m^3)
	1 Hour	100 ppb (188 μg/m3)[b]	0.18 ppm (339 μg/m^3)
Sulfur Dioxide (SO_2)	24 Hour	—	0.04 ppm (105 μg/m^3)
	3 Hour	—	—
	1 Hour	75 ppb (196 μg/m^3)[c]—	0.25 ppm (655 μg/m^3)
Sulfates (SO_4)	24 Hour	—	25 μg/m^3
Lead (Pb)	30 Day Average	—	1.5 μg/m^3
	Calendar Quarter	1.5 μg/m^3	—
Hydrogen Sulfide (H_2S)	1 Hour	No Federal Standards	0.03 ppm (42 μg/m^3)
Vinyl Chloride (chloroethene)	24 Hour		0.01 ppm (26 μg/m^3)
Visibility Reducing Particulates	8 Hour		In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70%.

NOTES:

a The 1997 8-hour standard is 0.08 ppm.

b The U.S. EPA is in the process of implementing this new standard(effective January 22, 2010). Note the EPA standard is in units of parts per billion (ppb) and California standards are in the units of parts per million (ppm). This standard is based on the 3-year average of the 98th percentile of the yearly distribution of 1-hour daily maximum concentrations.

c The U.S. EPA established new 1-hour SO_2 standard, effective August 23, 2010. EPA also revoked the existing 24-hour SO_2 standard of 0.14 ppm and the annual primary SO_2 standard of 0.030 ppm. Note the new EPA standard is in units of parts per billion (ppb).

SOURCE: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf

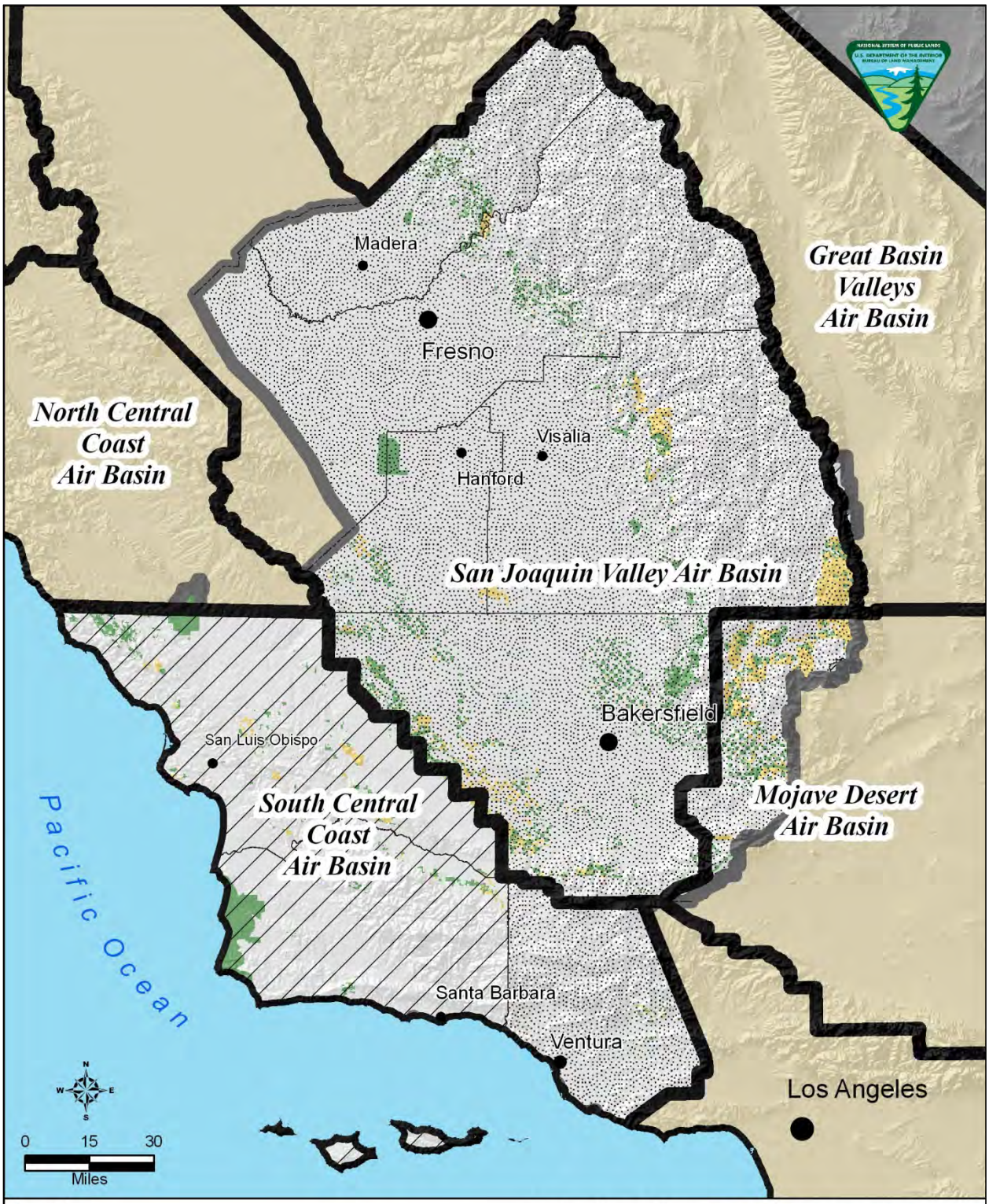
Table 3.1-3
Federal Designations within the Planning Area

Air Basin	Air Quality District	Pollutant	Planning Area Name	Federal Designation
San Joaquin Valley	San Joaquin Valley Unified APCD	Ozone (8-hour)	San Joaquin Valley, CA	Nonattainment Extreme[1]
		PM2.5		Nonattainment
		PM10		Attainment
Mojave Desert	East Kern County APCD	Ozone (8-hour)	Eastern Kern County, CA	Nonattainment Serious[1]
		PM10		Nonattainment
		PM 2.5		Unclassifiable/Attainment
South Central Coast	Ventura County APCD	Ozone (8-hour)	Ventura County, CA	Serious[1] Nonattainment
		PM10		Unclassified
		PM2.5		Unclassifiable/Attainment
	San Luis Obispo County APCD	Ozone (8-hour)	San Luis Obispo County, CA	Unclassifiable/Attainment
		PM10		Unclassified
		PM 2.5		Unclassifiable/Attainment
	Santa Barbara County APCD	Ozone (8-hour)	Santa Barbara County, CA	Unclassified/ Attainment
		PM10		Unclassified
		PM 2.5		Unclassifiable/Attainment
Great Basin Valleys	Great Basin Unified APCD	All Criteria Pollutants	Inyo County, CA	Unclassified/Attainment
North Central Coast	Monterey Bay Unified APCD	All Criteria Pollutants	Monterey County, CA	Unclassified/Attainment

[1] EPA classification (e.g. Moderate, Extreme, or Severe,) establishes the required attainment date of the federal standard for Ozone and PM10.

The majority of the Planning Area has been classified as non-attainment for 8-hour Ozone (see Map 3.2). A very small portion of the Planning Area in eastern Kern County is classified as non-attainment for PM 10 and the entire San Joaquin Valley air basin is designated as maintenance for PM10 (see Map 3.3). Portions of the Planning Area have been classified as non-attainment for PM2.5 under the state and/or national standards (see Map 3.4).

The classification of any area as a federal nonattainment or maintenance area brings an additional requirement for federal agencies. Section 176(c) of the CAA, as amended (42 U.S.C. 7401 et seq.), and regulations under 40 CFR, part 93, subpart W, state that "no department, agency or instrumentality of the federal Government shall engage in, support in any way or provide financial



Legend

- Bakersfield Field Office
- County Boundary

Federal 8hr Ozone

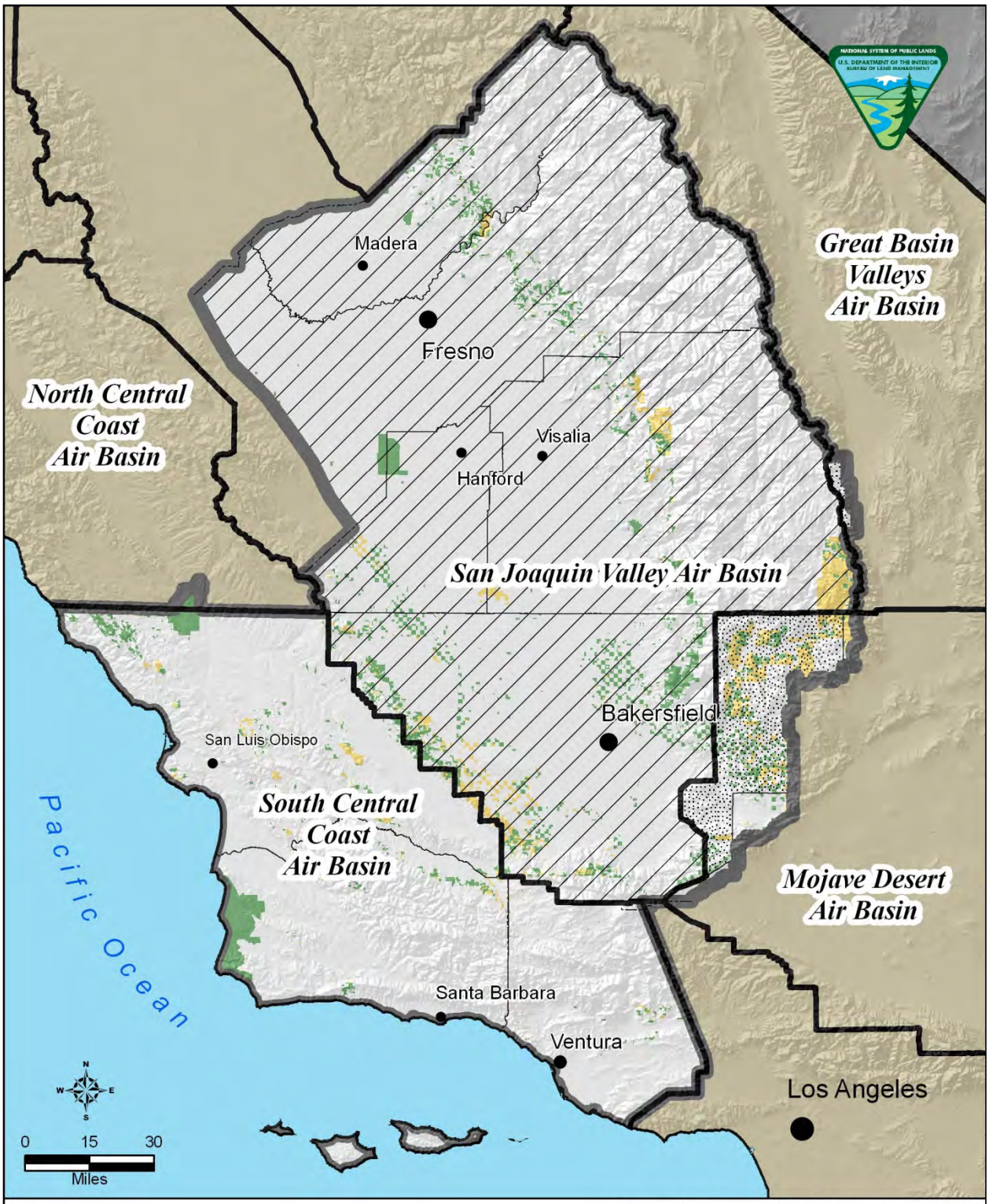
- Nonattainment
- Attainment or Unclassifiable

Decision Area

- Public Lands
- Federal Mineral Estate

Air Quality: 8 Hour Ozone Non-attainment Areas
Bureau of Land Management
Bakersfield Field Office

Map 3.2



Legend

Bakersfield Field Office

County Boundary

Federal PM10

Maintenance

Nonattainment

Unclassifiable

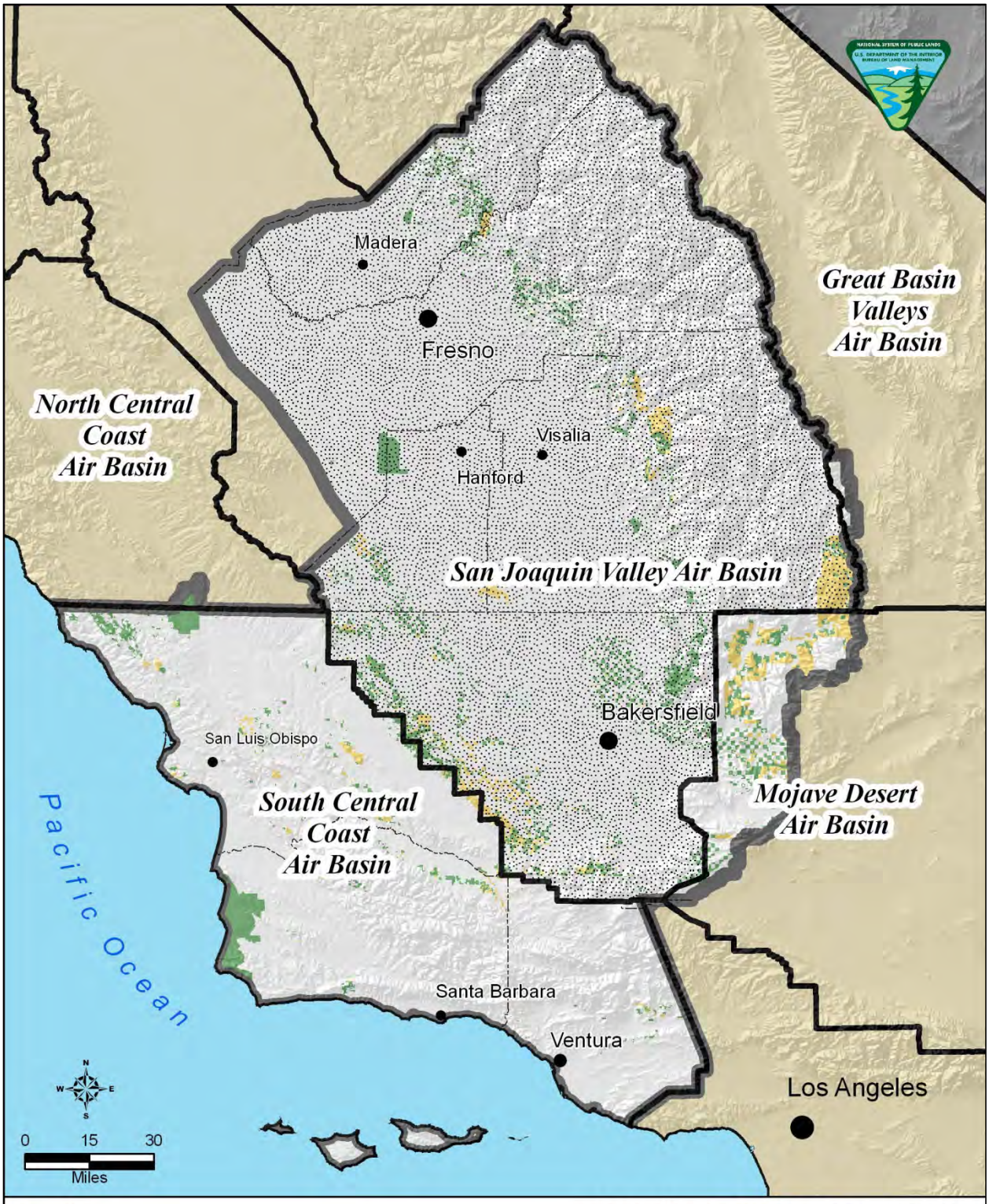
Decision Area

Public Lands

Federal Mineral Estate

Air Quality: pm10 Non-attainment Areas
Bureau of Land Management
Bakersfield Field Office

Map 3.3



Legend

Bakersfield Field Office

County Boundary

Federal pm2.5

Nonattainment

Attainment or Unclassifiable

Decision Area

Public Lands

Federal Mineral Estate

Air Quality: pm 2.5 Non-attainment Areas
Bureau of Land Management
Bakersfield Field Office

Map 3.4

assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan." This means that under the CAA 176(c) and 40 CFR, part 93, subpart W (conformity rules), federal agencies must make a determination that proposed actions in federal nonattainment areas conform to the applicable EPA approved implementation plans (if pertinent) before the action is taken. BLM utilizes a ten-step process for conducting conformity analyses and where applicable completing a conformity determination (see Appendix A).

As defined by 40 CFR 93 §153, de minimis levels are the minimum thresholds for which a conformity determination must be performed. Federal actions with emissions less than the de minimis levels are not required to complete general conformity analyses. Geographic areas that meet NAAQS are exempt from determining conformity with SIPs. Criteria pollutant rates that apply to nonattainment areas within the Planning Area are indicated in Table 3.1-4.

Table 3.1-4
Criteria Pollutant Rates that Apply to Nonattainment Areas within the Planning Area

Pollutant	Nonattainment Area Type	Tons/Year
Ozone (NOx and/or VOCs)	Serious	50
	Severe	25
	Extreme	10
	Other ozone (outside an ozone transport region)	100
PM 10	Moderate	100
	Serious	70
	Maintenance	100
PM 2.5	Direct emissions	100
	SO2, NOx, VOC or ammonia	100

3.1.1.1 Current Conditions

Air quality in the Planning Area is improving and nonattainment events have been episodic (San Joaquin Valley APCD 2010 and Ventura County APCD 2008). There are times that localized areas have not met federal air quality standards due to locally generated and/or transported in pollutants from a variety of sources. High PM10 concentrations that violated NAAQS peaked in the early 1990s. However, in more recent years, favorable monitoring data has led to reclassification by the US EPA for PM10, and redesignation for most of the Planning Area. Implementation of dust control rules and controls on a number of critical sources have led to the reductions in PM10 concentrations, and the redesignation of the San Joaquin Valley Air Basin as a PM10 maintenance area.

The numbers of violations of the NAAQS for ozone has declined. Rules establishing controls for ozone precursor emissions have been implemented, but air basins in the Planning Area continue to be impacted by mobile source emissions, primarily from vehicle use.

Background concentrations of criteria pollutants in the Planning Area are indicated below in Figure 3.1-1. Levels of 8-hour Ozone and PM2.5 (24-hour) were in excess of the NAAQS, based on 2008 emissions data taken from various monitoring stations. To provide context for possible BLM contributions to these conditions in the San Joaquin Valley air basin, a more in depth analysis of NOx shows the major source of emissions is mobile source (vehicles). These sources are mostly outside of BLM control and outside the jurisdiction of regional air districts (see Figure 3.1-2).

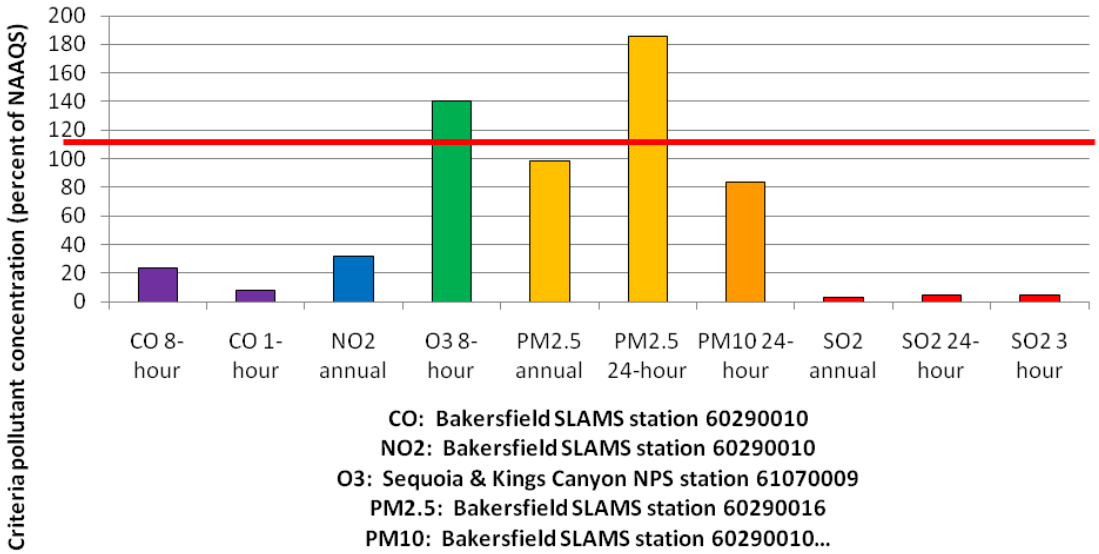


Figure 3.1-1 – Background Concentrations of Criteria Pollutants in the Planning Area 2008

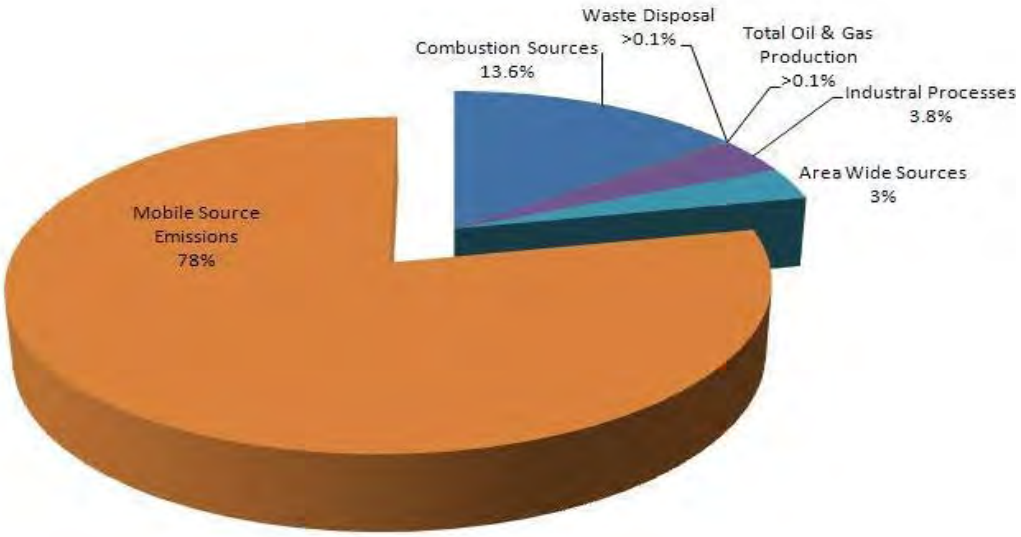


Figure 3.1-2 – NOx Sources in the San Joaquin Valley Air Basin

Ozone (O3): Ozone (O_3) is a colorless, toxic gas Ozone is one of a number of substances called photochemical oxidants, formed in the atmosphere as a result of the action of ultraviolet sunlight on certain chemicals in the atmosphere. Chemicals that react to form ozone are referred to as precursor emissions and include nitrogen oxides (NO_x), and reactive organic gas (ROG) (sometimes called volatile organic compounds (VOC)). NOx is a primary culprit in the formation of both ozone and PM 2.5. The Ozone forms downwind from the precursor source during the daylight hours. The reaction is accelerated by increased sunlight intensity and temperature. As a result, the maximum Ozone levels are generally reached in the late afternoon during the warmer times of the year. Ozone occurs in two layers in the atmosphere. The layer immediately surrounding the earth's surface is called the troposphere. The troposphere extends up about 10 miles and it is here that ground level ozone ("bad ozone") is a pollutant that damages human health, vegetation and many common materials. The stratosphere extends up from about 10 to 30 miles and ozone here is considered "good" because it protects life from harmful ultraviolet rays.

The majority of the Planning Area is in nonattainment with the federal standards for 8-hour Ozone, This includes portions of the South Central Coast Air Basin and the entire San Joaquin Valley Air Basin. For a number of years, several studies have looked at ozone pollution problems that occur in these air basins. According to the SJVAPCD Annual Report to the Community (2010), the summer of 2010 was the cleanest on record in the Valley, continuing the 20-year trend. Based on the current 8-hour federal standard, there have been a greater number of "Good" air quality days than "Unhealthy" air quality days, and the number of "Good" days has continued to increase since 2000.

Counties within the Planning Area that are in attainment with federal ozone standards include Santa Barbara and San Luis Obispo Counties (South Central Coast Air Basin); Monterey County (North Central Coast Air Basin); and Inyo County (Great Basin Valleys Air Basin).

Respirable Particulate Matter (PM10): PM_{10} emissions are comprised of particulate material below 10 microns and is a mixture of substances including elemental carbon, lead and nickel; compounds such as nitrates, organics and sulfates; and complex mixtures such as diesel exhaust and soil. Ambient PM_{10} can be caused by both environmental factors and human activities. Particulate emissions are considered direct when particles are emitted directly from the source. PM_{10} precursor emissions are emitted as gases that form into particles in the atmosphere downwind from the source. Human activities that contribute to the PM_{10} emissions include combustion sources such as stack emissions, diesel exhaust and smoke from prescribed fire and wild fire, fugitive dust sources such as construction and demolition activities, off highway vehicle (OHV) travel, unpaved public roads and parking lots, industrial activities, OHV open areas and military activities. The combustion sources tend to produce smaller particulates (less than 5μ) while fugitive sources tend to produce larger particulates (larger than 5μ).

One of the reasons for concern with PM_{10} emissions is their adverse effect on human health. All of the PM_{10} particles are considered Respirable Particulate because they can be inhaled into the nose, throat and/or lungs. The fine PM_{10} particles are the largest threat to health because they tend to deposit in the air sacks. In addition, many of the fine particles are from precursor emissions, several

of which are toxic or carcinogenic. Fugitive dust is primarily coarse particulate that are not as likely to contain toxic materials. The national PM_{10} standards are considered to be a level at which the whole population would have health effects from PM_{10}. The state PM_{10} standards are considered public health goals.

Nearly all of the Planning Area has had recorded concentrations of PM10 in excess of the national and state ambient air quality standards for PM10 emissions. However, based on current designations, the EPA has classified only one area within the Bakersfield FO Planning Area as federal PM_{10} nonattainment area, the East Kern County, CA- Serious nonattainment area. The EPA redesignated the entire San Joaquin Valley Air Basin to attainment/maintenance of the federal PM10 standards in November 2008. No monitoring sites have experienced PM_{10} violations in the SJVAB since 2003.

Fine Particulate Matter (PM2.5): These fine particles have been implicated as an increased health risk and consist of chemical compounds that mostly result from combustion processes. PM2.5 is a hotspot type of pollutant. The primary source of PM2.5 in the atmosphere is combustion products and is likely be found in the same areas as ozone. It forms from both direct sources and secondarily from the chemical transform of precursor emissions in the atmosphere. Many of the precursor emissions are from combustion sources also. Some of these precursor emissions include SO_2 and NOx. The USEPA estimates that secondary PM2.5 accounts for 50% of the ambient PM2.5 in many areas. Characterization work by the USEPA and others have developed an understanding of the sources of PM2.5 for a number of areas. Work done by Heloemmen and others (in US EPA 1997) in Phoenix, Arizona found that 57% of the PM2.5 was from direct combustion sources. They also found that unpaved road travel accounted for 1% of the emissions. Work by the Desert Research Institute in the San Joaquin Valley found that unpaved roads accounted for >1% of the PM2.5 and that soil accounted for around 7% of the PM2.5. They found that most of the soil PM2.5 came from construction and agricultural fields. Major sources for PM2.5 are diesel engines, power plants, boilers and such (USEAP 1997). Control strategies for PM2.5 have targeted diesel engines which are now being regulated.

Any areas that are classified as nonattainment areas by the USEPA would have to reduce the ambient PM2.5 levels. The 1997 PM2.5 primary standard was revised in 2006; USEPA final designations for the 2006 PM2.5 standard were signed in October 2009. Currently the San Joaquin Valley Air Basin is the only portion Planning Area that is classified as federal nonattainment for PM2.5. The projections from air regulators indicate a reduction in PM2.5 levels as the regulations take effect and the required technology advances are implemented.

According to the San Joaquin Valley APCD PM 2.5 levels are declining; the number of "Good" air quality days (based on the federal Air Quality Index (AQI) scale) is increasing with fewer "unhealthy" days recorded in late 2009 through early 2010 as compared to previous years (SJVAPCD 2010).

3.1.2 CONFORMITY DETERMINATION

The BLM has developed a ten-step process to comply with the federal conformity requirements. The proposed management actions in Alternatives B-E will be analyzed for conformance with relevant State Implementation Plans (SIPS). As described above, not all portions of the Planning Area are within designated nonattainment areas. Not all BLM management actions or programs that emit criteria pollutants will occur in all portions of the Planning Area. Therefore, some of these actions do not require a conformity analysis. For example, since there is no oil and gas development in the eastern portion of Kern County (Mojave Desert Air Basin), the East Kern APCD SIPs are therefore not evaluated for associated pollutants. Although there are several SIPs prepared for the South Central Coast Air Basin, the conformity analysis for this basin is focused only on the Ventura County portion, since the County is classified as nonattainment with the federal 8-hour ozone standard. Refer to Appendix A for a list of SIPs considered and those identified as relevant or applicable to BLM planning efforts.

Implementation plans will be evaluated in determining the conformance of BLM management activities associated with four broad categories of emissions: 1) energy development (oil and gas, non-energy minerals); 2) vehicle use on unpaved roads; 3) wildland fire ecology and fuels management; and 4) livestock grazing. The applicable implementation plans include the following:

- *San Joaquin Valley Air Pollution Control District 2007 Ozone Plan*
- *San Joaquin Valley Air Pollution Control District 2007 PM10 Maintenance Plan and Request for Redesignation*
- *San Joaquin Valley Air Pollution Control District 2008 PM2.5 Plan*
- *Ventura County Air Pollution Control District FINAL Ventura County 2007 Air Quality Management Plan*

These implementation plans include emissions inventories, source categories and identify control measures that bring actions into conformance with attainment strategies. Any BLM management action and authorized activity must comply with all permitting requirements of the respective air district, including current controls (e.g. Rules and Regulations). Refer to Appendix A for additional information and comprehensive rule lists by air district.

Current control measures identified in the San Joaquin Valley APCD air quality plans that are relevant to BLM activities and programs may include Flares; Boilers, Steam Generators and Process Heaters; VOC Emissions from Decontamination of Soil; Steam Enhanced Crude Oil Production Well Vents; Components Used in Oil/Gas Production and Processing; Crude Oil Production Sumps; Heavy Crude Oil Components; Storage of Organic Liquids; Heavy Oil Test Stations and Gauge Tanks; and Prescribed Burning and Hazard Reduction Burning (see Air Resources Appendix A for a comprehensive listing of control measures applicable to BLM activities).

As identified in the SJVAPCD PM 10 Maintenance Plan, compliance with Regulation VIII will adequately reduce PM10 emissions associated with BLM management actions and program activities

The current control measures established and implemented to reduce PM10 emissions apply to construction equipment, vehicles, and unpaved road dust.

Example control measure categories for stationary sources identified in the Ventura County Air Quality Management Plan (AQMP) for ozone that are applicable to BLM management activities may include Boilers, Steam Generators and Heaters; Crude Oil Storage Tank Degassing Operations; Vapor Recovery for Above Ground Storage Tanks; Soil Decontamination Operations; and Managed Burning and Disposal. In addition, a new rule under development will address the control of VOCs from oil wells prior to repair work in Ventura County.

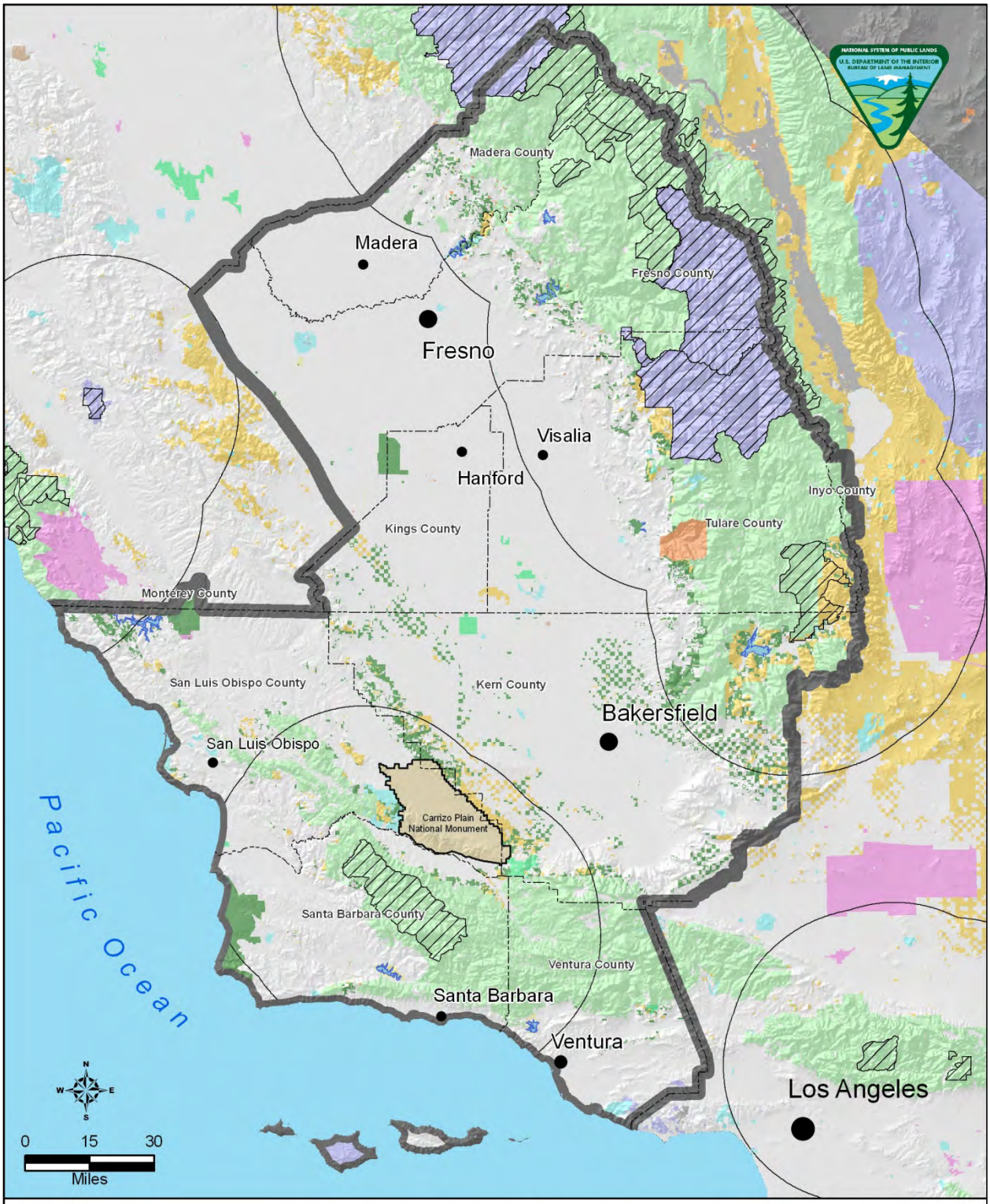
3.1.3 MANDATORY PSD CLASS I AREAS

The federal CAA also requires the US EPA to protect visibility conditions within the Class I areas established under the PSD program. Class 1 areas are listed wilderness areas and National Parks. One element of the PSD permit program is a review of the extent to which a proposed large stationary emission source (e.g., power plants) will impair visibility conditions in Class I areas. The CAA also requires development of programs to remedy existing visibility impairment in Class I areas if that visibility impairment results from man-made air pollution. For a Class 1 area to quality for a PSD review, it must be located within 75 kilometers of the potential emission source.

There are portions of eight mandatory PSD Class I visibility protection areas that occur within the Planning Area (Map 3.5); these Class I areas include:

- Kaiser Wilderness Area;
- Yosemite National Park;
- John Muir Wilderness Area;
- Kings Canyon National Park;
- Sequoia National Park;
- Dome Land Wilderness Area;
- San Rafael Wilderness; and
- Minarets Wilderness Area

Additional mandatory PSD Class I areas occur outside the Planning Area, but within 75 km of the FO boundary; these include Pinnacles Wilderness Area, Ventana Wilderness, Hoover Wilderness Area, Emigrant Wilderness Area, San Gabriel Wilderness, and Cucamonga Wilderness. Most lands in mandatory PSD Class I visibility protection areas are managed by the National Park Service and the U.S. Forest Service. BLM does not currently have any stationary sources subject to PSD review in the Decision Area.



Legend

- Bakersfield Field Office
- County Boundary
- Clean Air Act: Class I areas
- Class I areas. 50 km buffer.

Decision Area

- Public Lands
- Federal Mineral Estate

Mandatory Prevention of Significant Deterioration (PSD) Class I Areas
Bureau of Land Management
Bakersfield Field Office

Map 3.5

Visibility in the Planning Area is monitored by the interagency network of IMPROVE stations including those in Yosemite and Sequoia National Parks, Pinnacles National Monument, Domelands and Raphael Wilderness Areas. Annual visibility in and near the Planning Area ranges from 49 to 93 miles (IMPROVE, 2009). In and near the Planning Area, daily visibility ranges from 7 to 230 miles. The standard range of view (miles) is generally greater in the eastern portion of the Planning Area, and daily visibility distance is generally improved during the winter and spring months. Visibility in California ranged from 46 to 109 km in 2004.

3.1.4 HAZARDOUS AIR POLLUTANTS

Hazardous air pollutants (HAPs) are air pollutants suspected or known to cause cancer, birth defects, neurological damage, or other health issues. In California, HAPs are also referred to as toxic air contaminants (TACs). Section 112 of the CAA addresses emissions of HAPs; EPA regulates 187 HAPs by developing Maximum Achievable Control Technology (MACT) standards. Except for lead, there are no established ambient air quality standards for HAPs. Instead, these compounds are managed by air regulatory agencies on a case-by-case basis depending on the quantity and type of emissions and proximity of potential sensitive receptors. With respect to air quality, sensitive receptors are considered to be land uses that include groups of people or individuals that would be particularly vulnerable to potential adverse effects associated with air pollution, such as hospitals, schools, and daycare centers. For some air pollutants that are known to be particularly dangerous to human health, e.g. Naturally Occurring Asbestos (NOA), all human receptors would be considered sensitive. Section 112 requires that the EPA establish emission standards for major sources, which are defined as a stationary source or group of stationary sources that emit or have the potential to emit 10 tons per year or more of a single HAP or 25 tons per year or more of a combination of HAPs.

As discussed in *Soil Resources* and *Public Health and Safety*, serpentine soils are known to occur within the Planning Area. Serpentine soils may potentially contain naturally occurring asbestos (NOA). NOA is regulated by both the EPA and CARB. Asbestos-containing dust in serpentine soils is particularly of concern when this material is used in unpaved surfacing and/or is disturbed by vehicles and other means, including earthwork and road improvement (CARB 2001). In addition, in areas where commercial mining has occurred in the past, there is a potential for the presence of mercury. HAPs can also originate from mobile sources such as vehicles or off-road equipment. Diesel engines emit a complex mix of pollutants, the most visible of which are very small carbon particles or "soot," known as diesel particulate matter (DPM). CARB has identified DPM as a TAC. BLM program activities and management actions would be expected to implement MACT standards; as a result HAPs emissions are not further addressed in this plan. Any major source would be expected to comply with EPA standards for stationary sources, as described above.

3.1.5 SMOKE MANAGEMENT

Smoke management indicators include concentrations of carbon monoxide and particulate matter. BLM currently manages wildland fire and fuels management includes prescribed burning; smoke

management within the Planning Area is addressed by Smoke Management Plans, coordinated with the appropriate air district on burn permits. Title 17 of the California Code of Regulations (*Subchapter 2. Smoke Management Guidelines for Agricultural and Prescribed Burning*) provides the over-arching direction for smoke management in the state of California. Title 17 sets the meteorological criteria for determination of burn day status by air basin and provides overarching direction for management of smoke from prescribed fires. In addition, it directed each air district to prepare and submit a smoke management program to the California Air Resources Board for approval. Each air district within the Planning Area has an approved smoke management program. Prior to prescribed burning activities, the BLM must submit a smoke management plan to the applicable air district for approval. The BLM works with the air district to schedule burning activities when meteorological conditions will promote dispersal of emissions, not contribute to poor air quality, and will be in conformance with applicable state implementation plans. The air district is the final regulatory authority on approving planned ignitions based on smoke management concerns. The air district is also consulted when fires are managed for resource benefit. Their input is considered in the determination to manage for resource benefit or to suppress the fire.

3.1.6 CLIMATE AND METEOROLOGY

Climate indicators include temperature, precipitation, wind, barometric pressure, humidity, sunshine and cloudiness. Climate and meteorology are discussed below by region, based on similar topographical and meteorological conditions that are helpful in understanding pollution transport.

3.1.6.1 San Joaquin Valley

The San Joaquin Valley (Valley) is a continuous intermountain valley approximately 250 miles long and averaging 80 miles wide. On the western edge of the valley is the Coast Mountain range, with peaks reaching 5,020 feet, and on the east side is the Sierra Nevada range, with some peaks exceeding 14,000 feet. The Tehachapi Mountains form the southern boundary of the Valley. The Tehachapi mountain range includes peaks over 6,000 feet and contains mountain passes to the Los Angeles basin and the Mojave Desert. The Valley floor is open to the north only and has an average elevation of 200 feet.

Although marine air generally flows into the basin from the San Joaquin River Delta, the region's topographic features restrict air movement through and out of the basin. The Coastal Range hinders wind access into the valley from the west, the Tehachapi Mountains prevent most southerly passage of airflow, and the high Sierra Nevada range forms a significant barrier to the east. Additionally, most of the surrounding mountains are above the normal height of summer inversion layers, which are at 1,500 to 3,000 feet. These topographic features result in weak airflow.

The wind pattern produces conditions that result in poor horizontal dispersion of pollutants. When there are high pressure systems over the SJV, pollutant dispersal is also limited vertically by inversions and is highly susceptible to pollutant accumulation over time.

Warm dry summers and cool winters characterize the SJV floor. The average mean temperature over a thirty-year period is 65°F (see Figure 3.1-3). High daily temperature readings in summer average around 95°F. The SJV also experiences mild winters, where the average daily low temperature is 45°F. In general, the SJV averages 106 days a year with 90°F or hotter and 40 days a year with 100°F or hotter. The daily summer temperature variation can be as much as 30°F. The SJV has an inland Mediterranean climate that averages over 260 sunny days per year, primarily because semipermanent high pressure systems establish themselves over the SJV and deflect low pressure systems that might otherwise bring rain and winds.

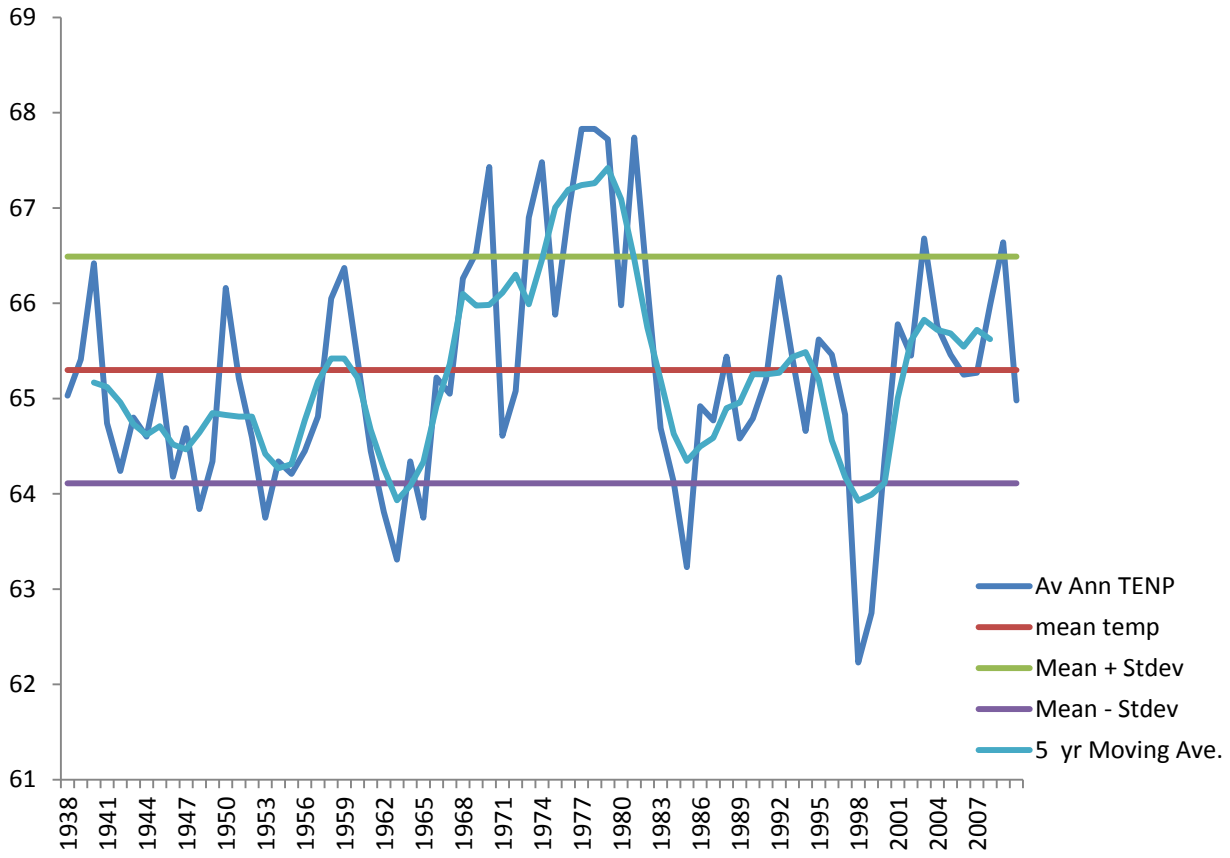


Figure 3.1-3 – Average Annual Temperature for Bakersfield, CA

Precipitation in the Valley portion of the Planning Area is confined primarily to the winter months (October – March), with some usually occurring in late summer and fall. Average annual rainfall for the valley floor ranges from 11 inches in the northern part (Fresno) to six inches in the south (Bakersfield).

For the purposes of transport, wind flows and inversion layers are discussed. Wind speed and direction play an important role in the dispersion and transport of air pollutants. Wind moves ozone precursors and ozone downwind from source areas of emissions or areas where ozone is formed.

During the daytime, surface winds enter the Valley primarily from the north through the San Francisco Bay Area; they also enter through passes in the coastal range. The air picks up ozone precursors emitted in the Bay Area and transports them down the valley where they eventually form ozone. Precursor emissions from Valley source areas—Stockton, Modesto, and Merced, for example (which occur outside the Bakersfield Field Office)—are also transported down the valley where they are converted to ozone. This general transport moves air near the surface south from Stockton to Bakersfield. The effect of the transport is seen to the southeast of Fresno and Bakersfield. The city of Parlier near Fresno and the communities of Edison and Arvin near Bakersfield often experience the highest ozone levels in the Valley. Air leaves the southern end of the valley during the day by flowing over Tehachapi Pass southeast of Bakersfield into the Mojave Desert, thereby transporting ozone and other pollutants out of the Valley, into portions of eastern Kern County. Also during the daytime, heated air rises into the mountains and transports ozone and other pollutants up the Sierra Nevada and coastal mountains.

At night, the same general wind flow pattern continues, with some important exceptions. First, the air is no longer able to exit the southern end of the SJV because it encounters cooler drainage winds from the surrounding mountains. Consequently, it is forced back north to set up a circular flow pattern known as the Fresno eddy. The eddy circulates pollutants counterclockwise and returns polluted air to urban areas where more precursors are added the next day. Another important difference about the nighttime winds in the SJV is that they typically are caused by a jet stream of fast moving air at an altitude of about 1,000 feet and a speed of up to 30 mph. Lastly, some of the pollutants transported to higher altitudes from daytime heating return to the valley at night because of drainage winds from the mountains.

Inversions affect air pollutant transport by limiting vertical dispersion of pollutants. The two common types of inversion in the SJV are radiation and subsidence. Studies have shown that radiation inversions tend to persist longer into daylight hours in the southern part of the SJV due to a lack of marine air intrusion and associated atmospheric mixing.

On the worst dispersion days the inversion may remain only a few hundred feet above the surface of the SJV. Subsidence inversions are caused by downward motion (subsidence) high in the atmosphere, typically in association with a high pressure area positioned along the coast. As air descends under the influence of the high pressure system, it compresses and heats up, and as a result becomes warmer than the air beneath it. This limits vertical mixing, as the warm air aloft restricts air movement from below.

During inversion events, air pollutant emissions build up in the atmosphere below the inversion; ozone precursors then react to form ozone, and levels increase from day to day. One-hour concentrations of ozone that exceed federal standards generally occur in the Valley during strong inversions. During many periods of high ozone levels, the Valley is likely experiencing a combination of radiation and subsidence inversions (SJVUAPCD 2008).

3.1.6.2 South Central Coast Area

Surface and upper-level wind flow varies both seasonally and geographically in the South Central Coast basin and inversion conditions common to the area can affect the vertical mixing and dispersion of pollutants. The prevailing wind flow patterns in the basin are not necessarily those that cause high ozone values. In fact, high ozone values are often associated with atypical wind flow patterns. Meteorological and topographical influences that are important to air quality in the South-Central Coast area are discussed below.

Semipermanent high pressure that lies off the Pacific Coast leads to limited rainfall (around 18 inches per year), with warm dry summers and relatively damp winters. Maximum summer temperatures average about 70 degrees Fahrenheit near the coast and in the high 80s to 90s inland. During winter, average minimum temperatures range from the 40s along the coast to the 30s inland. Additionally, cool, humid marine air causes frequent fog and low clouds along the coast, generally during the night and morning in the late spring and early summer. The fog and low clouds can persist for several days until broken up by a change in the weather pattern.

In the northern portion of the region (north of the ridgeline of the Santa Ynez Mountains), the sea breeze (from sea to land) is typically northwesterly throughout the year, while the prevailing sea breeze in the southern portion of the county is from the southwest. During summer, these winds are stronger and persist later into the night, when the sea breeze weakens and is replaced by light land breezes (from land to sea). The alternation of the land-sea breeze cycle can sometimes produce a "sloshing" effect, where pollutants are swept offshore at night and carried back onshore during the day. This effect is exacerbated when wind speeds are low.

The terrain around Point Conception, combined with the change in orientation of the coastline from north-south to east-west, can cause counterclockwise circulation (eddies) to form east of the point. These eddies fluctuate temporally and spatially, often leading to highly variable winds along the southern coastal strip. Point Conception also marks the change in the prevailing surface winds from northwesterly to southwesterly.

Santa Ana winds are northeasterly winds that occur primarily during fall and winter, but occasionally in spring. These are warm, dry winds blown from the high inland desert that descend down the slopes of a mountain range. Wind speeds associated with Santa Ana winds are generally 15 to 20 mph, though they can sometimes reach speeds in excess of 60 mph. During Santa Ana conditions, pollutants emitted in Santa Barbara, Ventura County, and the South Coast Air Basin (the Los Angeles region) are moved out to sea. These pollutants can then be moved back onshore into Santa Barbara County in what is called a post-Santa Ana condition. The effects of this condition can be experienced throughout the air basin. Not all post-Santa Ana conditions, however, lead to high pollutant concentrations in Santa Barbara and Ventura County.

Upper level winds (measured at Vandenberg Air Force Base once each morning and afternoon) are generally from the north or northwest throughout the year, but occurrences of southerly and easterly winds do occur in winter, especially during the morning. The infrequent upper level winds from the

south and east during the summer are usually associated with periods of high ozone levels. Surface and upper level winds can move pollutants that originate in other areas into these counties.

Surface temperature inversions (0 to 500 feet) are most frequent during the winter, and subsidence inversions (1,000 to 2,000 feet) are most frequent during the summer. Inversions are an increase in temperature with height and are directly related to the stability of the atmosphere. Inversions act as a cap to the pollutants that are emitted below or within them (CAP 2007).

3.1.7 CLIMATE CHANGE

Global climate change is the term commonly used to refer to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer) (EPA 2011b). The term "climate change" is often used interchangeably with the term "global warming." Climate change or global warming is an average increase in the temperature of the atmosphere near the earth's surface and in the troposphere, which can contribute to changes in global climate patterns. The global distribution of temperature increase is varied, and in some locations average temperatures have actually decreased. Climate change has been attributed to a variety of causes, both natural and human-induced (EPA 2011b). Issues of concern with respect to climate change include how climate variability may affect resources and how human activities and other factors may affect climate.

Ongoing scientific research has identified the potential effects of "greenhouse gas" (GHG) emissions on global climate. The primary GHGs responsible for climate change are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone, fluorinated gases, and water vapor. Through complex interactions on a regional and global scale, these GHG emissions cause a net warming effect of the atmosphere; different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere. Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "CO_2 equivalent" and is defined as the amount of a GHG emitted multiplied by its GWP. CO_2 has a GWP of one. Some GHGs, such as CO_2, CH_4, and N_2O, occur naturally and are emitted to the atmosphere through natural processes (e.g. geothermal vents) and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH4 results from off-gassing associated with agricultural practices and landfills. Human-created GHGs, which have a much greater heat absorption potential than CO_2, include fluorinated gases, such as hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, which are byproducts of certain industrial processes (CalEPA 2006). Although GHG levels have varied for millennia, with corresponding variations in climatic conditions, recent industrialization and burning of fossil carbon sources have caused CO2 concentrations to increase dramatically, and are likely to contribute to overall climatic changes, typically referred to as global warming.

The assessment of GHG emissions and climate change is in its formative phase, and it is not yet possible to know with confidence the net impact to climate. Observed climatic changes may be caused by GHG emissions, or may reflect natural fluctuations (U.S. GAO 2007). We know that in the past the earth has gone through a number of ice ages with periods of warming and droughts between the periods. The most recent Ice Age ended around 13,000 years ago and the climate has warmed and dried since then. The warming and drying has not been continuous. Around 900 AD a 200 year drought nearly dried up Mono Lake (called the Medieval Warming) (Singer, S. Fred and Dennis T. Avery. 2007). The Intergovernmental Panel on Climate Change (IPCC, 2007) recently concluded that "Warming of the climate system is unequivocal" and "Most of the observed increase in globally average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic [man-made] greenhouse gas concentrations."

The current scientific consensus holds that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have resulted in much higher concentrations of GHGs in the atmosphere than would be expected to occur naturally. In the last decade, increased GHGs are believed to have resulted in increases in global temperature and other climate change effects never previously recorded. Data show that the earth's average surface temperature has increased by about 1.2 to 1.4 degrees Fahrenheit in the last 100 years (EPA 2011c). The eight warmest years on record (since 1850) have all occurred since 1998, with the warmest year being 2005 (EPA 2011c). Without additional meteorological monitoring systems, it is difficult to determine the spatial and temporal variability and change of climatic conditions, but increasing concentrations of GHG are likely to accelerate the rate of climate change. In 2001, the IPCC indicated that by the year 2100, global average surface temperatures will rise 1.4 to 5.8°C (2.5 to 10.4°F) above 1990 levels. The National Academy of Sciences (2006) has confirmed these findings, but also indicated there are uncertainties how climate change will affect different regions. Computer model predictions indicate that increases in temperature will not be equally distributed, but are likely to be accentuated at higher latitudes. Warming during the winter months is expected to be higher than during the summer.

The latest EPA greenhouse gas inventory shows that in 2008, the U.S. emitted slightly less than 7 billon metric tons of greenhouse gases (U.S. EPA 2011c). California is a substantial contributor of global GHGs. The state is the fifteenth largest emitter of greenhouse gases in the world, producing 479.8 million metric carbon dioxide equivalents according to the most recent 2005 inventory of emissions (CalEPA 2010). Transportation accounts for a much larger portion of emissions than other states, with 38 percent of emissions coming from this sector (CalEPA 2010).

3.1.7.1 Federal Regulation

There is currently no federal significance thresholds established for GHG emissions, or approved guidance on addressing GHG emission impacts under NEPA. According to the EPA, "the United States government has established a comprehensive policy to address climate change" that includes slowing the growth of emissions; strengthening science, technology, and institutions; and enhancing international cooperation. To implement this policy, "the Federal government is using voluntary and

incentive-based programs to reduce emissions and has established programs to promote climate technology and science." The federal government's goal is to reduce the GHG intensity (a measurement of GHG emissions per unit of economic activity) of the American economy by 18 percent over the 10-year period from 2002 to 2012. In addition, the EPA administers multiple programs that encourage voluntary GHG reductions, including "ENERGY STAR," "Climate Leaders," and Methane Voluntary Programs. However, at the time of this writing, there are no adopted federal plans, policies, regulations, or laws directly regulating GHG emissions.

The Council on Environmental Quality (CEQ) issued draft guidance to federal agencies on February 18, 2010 regarding GHG emissions (CEQ 2010). This guidance "proposes to advise Federal agencies they should consider opportunities to reduce GHG emissions caused by proposed Federal actions and adapt their actions to climate change impacts throughout the NEPA process." If a proposed action would be anticipated to cause direct emissions of 25,000 metric tons or more of CO2-equivalent GHG emissions on an annual basis, CEQ proposes agencies should consider this an indicator that a quantitative and qualitative assessment may be meaningful to decision makers and the public. However, Federal plans that cover multiple actions subject to NEPA, may more appropriately address GHG emissions at the level of individual projects. Furthermore, the guidance also states that it is not currently useful for NEPA analysis to attempt to link specific climatological changes to a particular project or emissions.

Any stationary source within the Planning Area that directly emits 25,000 metric tons or more of CO2-equivalent GHG on an annual basis is subject to GHG emissions accounting requirements, pursuant to the Clean Air Act.

With respect to the BLM, Department of the Interior Secretarial Order 3289 (signed September 14, 2009) requires each bureau and office of the Department of the Interior to consider and analyze potential climate change impacts when making decisions regarding potential use of resources under the department's purview.

3.1.7.2 State and Local Regulation

In 2005, California Governor Arnold Schwarzenegger issued Executive Order S-3-05, establishing statewide GHG emission reduction targets of 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050. In 2006, Governor Schwarzenegger signed Assembly Bill (AB) 32, the Global Warming Solutions Act, which capped the state's GHG emissions at 1990 levels by 2020. This is the first statewide program in the country to mandate an economy-wide emissions cap that includes enforceable penalties. The *Climate Change Scoping Plan*, approved by CARB in 2008 to fulfill AB 32, is the state's roadmap to reach GHG reduction goals. The plan outlines a number of key strategies to reduce GHG emissions. The measures in the Scoping Plan will be in effect by 2012 and will include a number of discrete early action measures to reduce GHG emissions. A summary of relevant GHG legislation in California is presented below:

- ***AB 4420 (1988).*** This bill directed the California Energy Commission, in consultation with CARB and other agencies, to study and report on how global warming trends may affect California's energy supply and demand, economy, environment, agriculture, and water supplies.
- ***AB 1493 (2002).*** This bill requires CARB to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of greenhouse gases from motor vehicles.
- ***AB 32 (2006).*** This bill requires statewide GHG emissions be reduced to 1990 levels by 2020. Reductions to be accomplished via enforceable statewide cap on GHGs are to be phased in starting in 2012. The bill directs CARB to develop and implement regulations to reduce statewide emissions from stationary sources and specifies that regulations adopted in response to AB 1493 be used to address GHG emissions from vehicles. The bill requires CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels. It includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.
- ***SB 97 (2007).*** This bill directed the Governor's Office of Planning and Research to develop proposed CEQA Guidelines by July 1, 2009, and adopt guidelines by January 1, 2010.
- ***SB 375 (2008).*** This bill requires coordination between transportation planning and land use planning. The bill directs CARB to develop regional GHG emission reduction targets to be achieved from automobile and light truck sectors by 2020 and 2035. CARB is to work with California's 18 metropolitan planning organizations to align their regional transportation, housing and land use plans and prepare a "sustainable communities strategy" to reduce vehicle miles traveled in their respective communities.

Pursuant to SB 97, the State adopted new CEQA guidelines concerning GHG emissions on March 18, 2010. The new guidelines do not propose a particular threshold of significance to be applied in determining whether a project's contribution to global climate change is significant. Rather, they provide guidance on determining the significance of impacts resulting from a project's GHG emissions as well as appropriate mitigation measures (Sections 15064.4 and 15126.4). The new guidelines indicate that lead agencies have discretion to determine which type of methodology to use to evaluate GHG emissions, given that such methodologies are evolving (Section 15064.4).

Confirmed by correspondence with SJVAPCD staff, their policy and guidance on addressing GHG emission impacts is only available for CEQA analyses; however the air district's guidance may be generally used by land-use agencies for reference (BLM, L. Ashley personal communication with SJVAPCD, 4 March 2011). The *SJVAPCD District Policy Addressing GHG Emission Impacts for Stationary Source Projects* indicates that the need to quantify project specific impacts is negated if emissions reductions are achieved by implementing BPS. This approach is based on the use of BPS and their associated, pre-quantified GHG emission reduction effectiveness. Furthermore, the *SJVAPCD Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects Under CEQA* indicates that projects implementing BPS are not required to quantify greenhouse gas

emissions. BLM concludes that the requirement to quantify GHG emissions and to implement SJVAPCD BPS to reduce GHG emissions would occur at the application stage, and would be analyzed in a site-specific NEPA analysis; this is consistent with draft CEQ guidance.

3.2 BIOLOGICAL RESOURCES

Ranging from the Pacific coast to the crest of the Southern Sierra Nevada, the Planning Area encompasses diversity in geography matched by a corresponding diversity in vegetation, habitats, plants and animals. One hundred and twenty different vegetation series (Sawyer and Keeler-Wolf 1995, CNPS 2009a) are known or have the probability of being found on lands managed by the Bakersfield FO. California has more species of plants and animals, and more endemic species (excluding Hawaii), than any other state. A significant portion of this biologic diversity resides within the boundaries of the Bakersfield FO. For example, of the 130 federally listed animal species in California, over a third is found within the Planning Area. A more detailed overview of the biological resources present within the Bakersfield FO can be found in Appendix B.

California is also the most populous state in the nation. A high percentage of that population resides in or makes use of lands within the Planning Area. The combination of high biologic diversity and high public use results in a high number of native habitats and species that are considered threatened, endangered, sensitive, or otherwise on the decline.

Native habitats and populations are managed by restricting or modifying actions involving public lands, by the restoration of degraded sites, by species-specific conservation actions, and by the use of special designations and stipulations to protect critical species and habitats and to minimize negative impacts to biological processes and resources. Management of native species is most effective and efficient when populations and habitats are large enough to withstand short-term environmentally caused decline. As species and the habitats on which they depend become scarce, the options available to managers become limited biologically, politically, and economically. Rather than manage for individual species, the preference is to manage for ecosystems, healthy biological processes, and suites of species to preserve long-term biodiversity.

BLM manages biological resources under a variety of authorities including:

- Bald Eagle Protection Act of 1940, as amended;
- Endangered Species Act of 1973, as amended;
- Fish and Wildlife Coordination Act of 1958, as amended;
- Marine Mammal Protection Act of 1972, as amended;
- Migratory Bird Treaty Act of 1918, as amended;
- Sikes Act of 1960, as amended;
- BLM Manual 6840, including California Supplements (special status species);
- EO 11990 of May 1977 (wetlands);
- EO 11988 of May 1977 (floodplain management); and

- EO 11987 of May 1977 (exotic organisms).

Because the biological resources important to the BLM are not restricted to public lands, BLM collaborates with other federal agencies, State and local governments, private land owners, conservation groups, and other interested publics in the design and implementation of regional conservation plans and other conservation efforts. BLM lands are an important part of regional conservation efforts and provide protection for listed and sensitive species, especially plants, which have much less protection on non-federal surface. Scattered BLM lands also play an important part in regional conservation plans, act as catalysts for new conservation initiatives, function as wildlife corridors and reserves, and, as development in California continues, can become important conservation areas as adjacent native habitat is lost.

Ecosystem health can be measured in a number of ways, using a variety of indicators, depending on the habitat or species of interest. The overall goal is to maintain healthy plant and animal communities and functioning biological processes, the components of which are listed below:

- Intact soils (with low erosion, functioning hydrologic processes, biological crusts present where appropriate, and with adequate soil biological activity and soil formation).
- Healthy vegetation (with diverse composition and life forms, correct species for site, not inundated with weedy species, with appropriate size classes, vigor and structure, and with adequate reproduction).
- Healthy animal communities (diverse, with appropriate predator-prey ratios, with correct species for site, not with high levels of introduced or problematical species, with appropriate age classes, and with adequate reproduction).
- Properly functioning riparian areas (supporting appropriate wetland vegetation, and with intact hydrological processes).

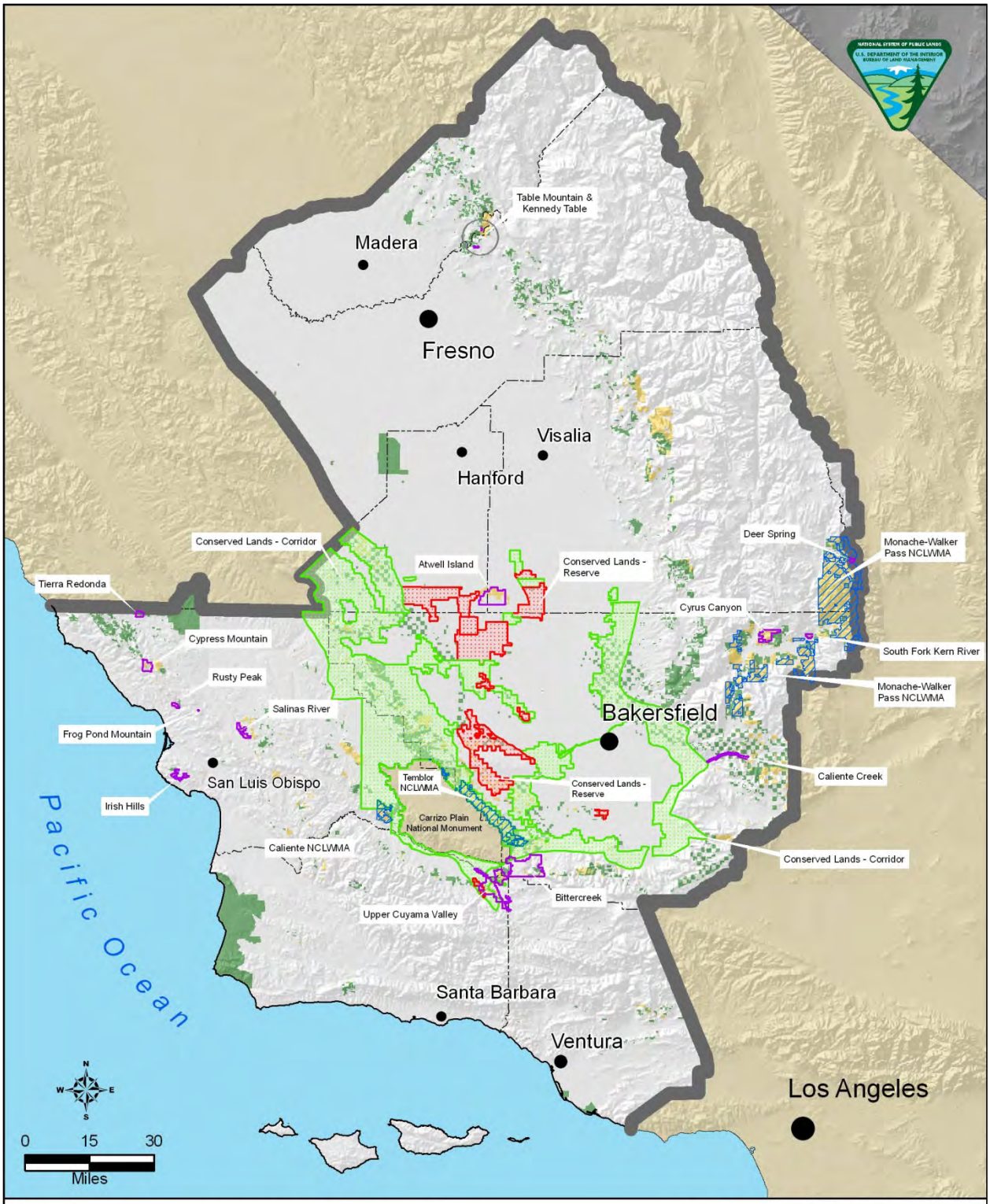
The condition of biological resources on public lands within the Decision Area has been evaluated as an element of the rangeland health assessments conducted on 97 grazing allotments between 1998 and 2010. During these assessments, indicators of the health of the biological resources are evaluated using the condition of the soils, the amount of erosion, biological soil organisms, vegetation composition, plant diversity, plant cover, plant vigor, ages of trees and shrubs, damage from animal use, wildlife habitat structure, and wildlife species composition and abundances. About 293,300 acres have been assessed, with 282,600 acres rated as healthy (96%) and 10,700 acres (4%) as having unhealthy conditions (Appendix F-3a). The most common reason for the unhealthy conditions of the biological resources has been the lack of adequate shrub cover and poor vigor in some San Joaquin Valley habitats, invasive species dominating an area, or damage to riparian habitats along streams or at springs. These assessments indicate that the biological resources on the public lands are in generally good condition and exhibit ecological function and processes appropriate for the individual sites. BLM lands, however, are under constant pressure to provide multiple uses (e.g. energy development, recreation opportunities, community infrastructure) and adjacent private lands continue to be impacted. Management actions developed in RMPs are designed to minimize impacts

to important biological resources. BLM has public trust obligations derived from law and directives to manage public lands for the benefit of subsequent generations of Americans.

Overall, the trend within the Planning Area is a continued fragmentation, degradation and loss of natural habitats, followed by a reduction in biodiversity. The disruption of natural ecological processes (e.g. fire, succession) and the introduction of exotic species also impacts biodiversity. With increased human impacts, generalist species and those adapted to disturbance are favored, while rare and specialized species decline. The primary impact to biological resources is a result of the increase in human population and associated impacts from development, other economic activities, and recreation. Threats to native habitat include examples such as complete destruction from conversion to agriculture; fragmentation as intervening natural areas are developed into homes, commercial sites and roads; and degradation from OHV, other recreation activities, and grazing. As habitats are degraded or lost, some native plant and animal populations decline to such an extent that they meet the criteria for listing as threatened or endangered. In certain areas, however, regional conservation plans have been successful in protecting habitat, establishing protocols for development in sensitive areas, and increasing the amount of conserved lands. Examples within the Bakersfield FO include the Valley Floor Habitat Conservation Plan focusing on a suite of rare San Joaquin Valley species and recent efforts by state, county and city governments to preserve large tracts of land in the Irish Hills area of San Luis Obispo County.

In the future, BLM lands will become increasingly more important in the conservation of biological resources as adjacent unprotected private lands are developed for, or degraded by, human uses. Areas of most concern include populations of rare and sensitive species, unique habitats and important linkages. These areas are identified on Map 3.6. A number of these areas are currently managed as either ACECs (Map 3.26) or Special Management Areas (Map 3.7).

Threats to specific areas and habitats can be identified for some areas within the Bakersfield FO, and for some areas, BLM has adopted specific policy to guide BLM actions. Because much of the native habitat within the San Joaquin Valley has been lost to agricultural, urban and industrial development, BLM has developed specific protocols and restrictions, so that native habitat and rare species are protected, while allowing a reasonable amount of development in this important oil-producing area.



Legend

- Bakersfield Field Office
- County Boundary

Decision Area

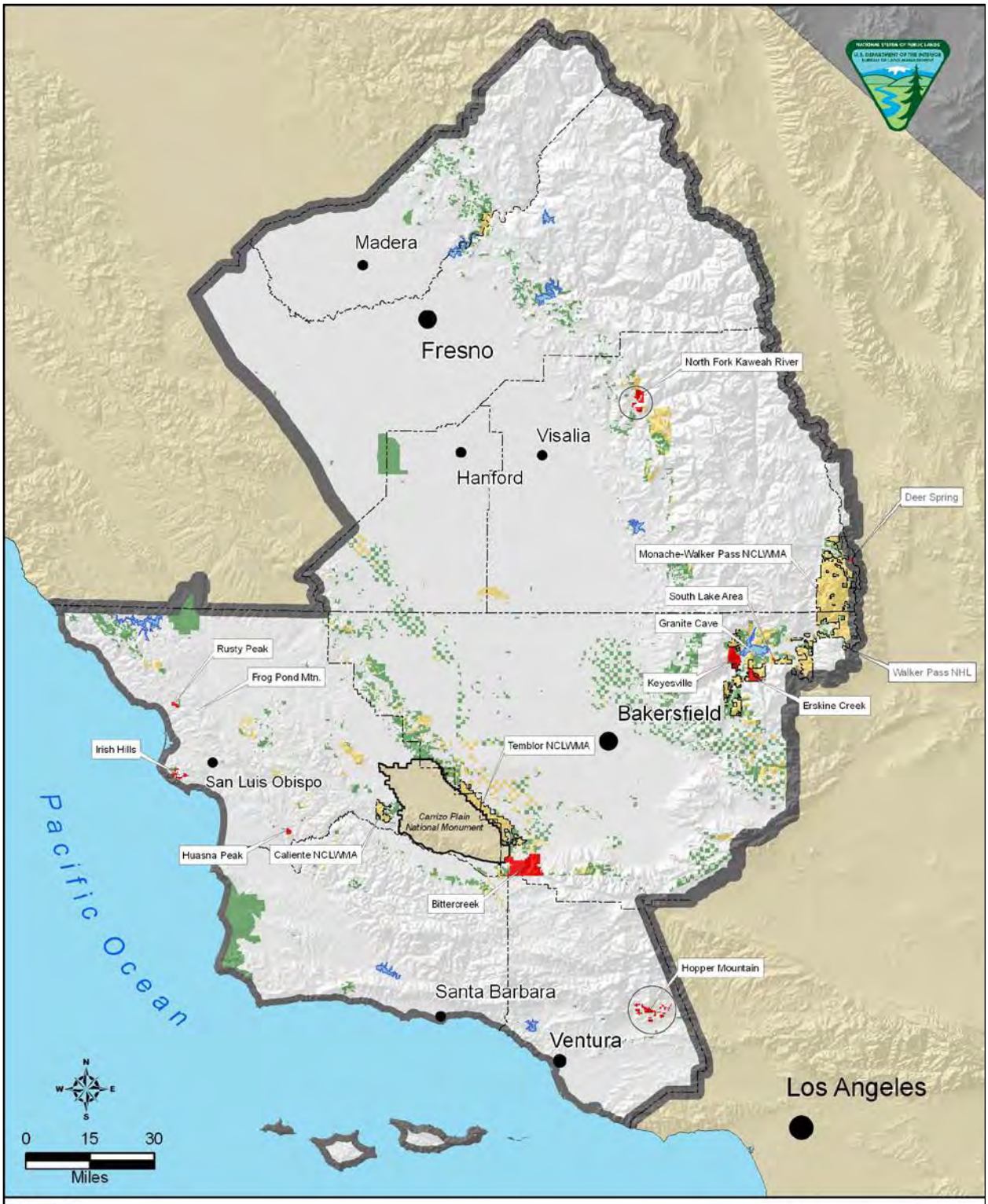
- Public Lands
- Federal Mineral Estate

Areas of Ecological Importance (AEI)

- NCLWMA
- Conserved Lands - Reserve
- Conserved Lands - Corridor
- All Other AEIs

Areas of Ecological Importance
Bureau of Land Management
Bakersfield Field Office

Map 3.6



Legend

- Bakersfield Field Office
- County Boundary
- NCLWMAs
- Special Management Areas

Decision Area

- Public Lands
- Federal Mineral Estate

Special Management Areas
"Alternative A"
Bureau of Land Management
Bakersfield Field Office

Map 3.7

3.2.1 SPECIAL STATUS SPECIES

Special status species are those with populations that have declined to the point of substantial federal or state agency concern. BLM special status species include species that are proposed for listing, are officially listed as threatened or endangered, or are candidates for listing as threatened or endangered under the provisions of the Endangered Species Act (ESA). BLM special status species also include species that are designated by the State Director as BLM sensitive species (BLM 2008). Furthermore, several additional categories of species – California listed species, California Rare Plants Rank species, California species of special concern, California fully protected species, and American Bird Conservancy watch list species are treated as special status species by the Bakersfield FO. The ESA mandates that all federal agencies use their authorities to further the purposes of the ESA by carrying out programs for conserving endangered and threatened species. The ESA also requires a federal agency to ensure that any action it authorizes, funds, or implements is not likely to jeopardize the continued existence of any endangered or threatened species or to destroy or adversely modify designated critical habitat. BLM policy is to conserve listed species and the ecosystems on which they depend. It also is to ensure that BLM actions are consistent with the conservation needs of all special status species and to not contribute to the need to list any special status species.

Federally proposed species are those that have been officially proposed for listing as threatened or endangered under the ESA; federally listed species are those officially listed as threatened or endangered under the ESA. Endangered species are those that are in danger of extinction throughout all or a significant portion of their ranges. Threatened species are those that are in danger of becoming endangered in the foreseeable future. Federal candidate species are those on whom the US Fish and Wildlife Service has sufficient information to warrant proposing them for listing but is precluded from doing so by higher listing priorities.

BLM California sensitive species are designated by the BLM California State Director in cooperation with the CDFG, as follows:

- Those species that could become endangered in or extirpated from a state or within a significant portion of their distribution;
- Those whose status is under review by the USFWS or National Marine Fisheries Service (NMFS);
- Those that are undergoing or are predicted to undergo significant downward trends in habitat capability that would reduce their distribution;
- Those whose populations or densities are declining significantly or that are predicted to decline significantly such that it becomes necessary to designate their federal status as listed, proposed, or candidate or to designate their state status as listed;
- Those that typically have small and widely dispersed populations;
- Those that inhabit ecological refugia or other specialized or unique habitats; or
- Those that are state listed but that may be better conserved under BLM sensitive species status.

The list of BLM California sensitive plant species corresponds to the California Rare Plants Rank 1b (previously known as CNPS list 1b), a designation made by the California Native Plant Society for those plants considered most rare by the California botanical community.

Less rare plants are designated as California Rare Plants Rank, some of which are of interest to BLM because of their potential to become increasingly rare or because there are significant populations on public land. California species of special concern are those animal species that are of concern to the state because declining numbers, restricted range, or continuing threats have made them vulnerable to extinction. A California fully protected animal species has additional protection due to its rarity or potential for extinction. American Bird Conservancy watch list species are bird species that the American Bird Conservancy and Audubon Society has determined to have limited ranges or whose populations are in decline or are threatened.

Eighty six federally listed species (41 plant and 45 animal species) occur within the Planning Area, 38 of which (19 plant and 19 animal species) are known to occur or are likely to occur on public lands within Decision Area (Appendix B), and three additional species may occur on split estate. Public land provides important habitat for 16 listed species: Morro Manzanita, succulent owl's clover, California jewelflower, Chorro Creek bog thistle, Springville clarkia, Kern mallow, Indian Knob mountain balm, San Joaquin woollythreads, San Joaquin Valley Orcutt grass, Morro shoulderband snail, valley elderberry longhorn beetle, blunt-nosed leopard lizard, California condor, giant kangaroo rat, Tipton kangaroo rat, and San Joaquin kit fox. In addition, public land provides potentially important habitat for 16 additional listed species: Mariposa pussy paws, purple amole, La Graciosa thistle, Gaviota tarplant, Lompoc yerba santa, Hartweg's golden sunburst, Tulare pseudobahia, Parish's checkerbloom, Keck's checkerbloom, vernal pool fairy shrimp, vernal pool tadpole shrimp, Kern primrose sphinx moth, California tiger salamander, California red-legged frog, southwestern willow flycatcher, and Buena Vista Lake shrew.

Most special status species have more than one special status or are also federally listed. Within the Planning Area, there are five federal candidate animal species, 70 CESA listed species (35 plant and 35 animal species), 76 California animal species of special concern, 17 California fully protected animal species, 241 BLM California sensitive species (194 plant and 47 animal species), and 31 American Bird Conservancy watch list species (Appendix B). Over half of these species are known to occur or are likely to occur on public lands; additional species may occur on split estate.

The USFWS officially designates critical habitat under the ESA. These are specific areas that contain features essential for the conservation of a threatened or endangered species and that require special management considerations or protection. Critical habitat for 25 animal and 20 plant species occurs within the Planning Area. Twelve of these critical habitat areas contain public lands within the Decision Area, and the species found there are succulent owl's clover, San Joaquin Valley orcutt grass, hairy orcutt grass, Morro shoulderband snail, vernal pool fairy shrimp, vernal pool tadpole shrimp, steelhead (southern California coast and south-central California coast populations), California tiger salamander, California red-legged frog, California condor, and southwestern willow flycatcher. Critical habitat for six additional species, Hoover's spurge, Camatta Canyon amole,

Keck's checkerbloom, arroyo southwestern toad, western snowy plover, and coastal California gnatcatcher, includes split estate.

In general most special status species continue to be in decline as habitat is lost or degraded. Special status species populations on BLM land are generally in better condition than on unprotected lands due to specific management actions and use restrictions (see Appendix B and Appendix L) to protect and conserve habitat.

3.2.2 FEATURED SPECIES AND COMMUNITIES

In addition to special status species, Bakersfield BLM places an emphasis on maintaining or improving habitat conditions for species of interest to CDF&G and USFWS; species with declining populations or with limited distributions; and species with high ecological values. Plant communities or habitats that are rare, have limited distributions, have high ecological importance, contain unique assemblages, or are at risk from climate change, pathogen or other factors are also given more management emphasis.

Featured Plant Communities: Some plant communities are of concern because of rarity (e.g., alkali sink, serpentine vegetation, pygmy oak forest, California bay forest, and rare conifers); high ecological importance (e.g. saltbush scrub, riparian, cryptogamic crusts); or potential for future serious decline (oak woodlands, giant sequoia forest). For the rare communities, the BLM lands represent a major portion of the existing habitat. Communities with high ecological importance support suites of rare species, provide important resources such as water, or provide important ecological processes, such as the benefits to soils from cryptogamic crusts. Some critical plant communities, such as oak woodlands, are in peril due to nonnative pathogens (such as sudden oak death), continuing development, grazing pressures, altered fire regimes, and a shift of temperature and precipitations regimes due to climate change.

BLM manages vegetation by restricting or relocating human activities and land uses, by the application of controlled burns, and by the active restoration of native species to degraded areas. BLM is also part of region-wide efforts to preserve native habitat and cooperatively manage important areas, especially in regards to the future unprecedented rapid change in climate.

Game and Furbearer Species: BLM manages game and furbearer habitat to meet herd unit or population objectives set by CDFG. Management actions include water developments, prescribed burns, protective fencing of riparian areas, and maintaining shrub conditions. Mule deer (*Odocoileus hemionus*) occur on public lands throughout the Sierra Nevada and Sierra foothill, and the Temblor Range. Black-tailed deer, a subspecies of mule deer, occur on most public lands from the Coast Ranges west. Most of these herds are in stable condition. Herd unit condition and trend is detailed in Appendix B. Pronghorn (*Antilocapra americana*) have been reintroduced into the Carrizo Plain and Antelope Valley and are likely to use public land in the Temblor Foothills, Cuyama Valley, Maricopa, and Tehachapi areas. Tule elk (*Cervus canadensis nannodes*) have been reintroduced to the Caliente Range and are likely to occur on public land in the Taylor Canyon area of the Caliente Range.

Significant numbers of black bear (*Ursus americana*) occur on public land, primarily in the Case Mountain, Milk Ranch Peak, Three Rivers, and Chimney Peak areas. Nonnative wild pigs (*Sus scrofa*) occur on public land on scattered coastal parcels and in the Blue Ridge, Three Rivers, Case Mountain, Milk Ranch Peak, Fresno River, and San Joaquin River Gorge areas.

Both California quail (*Callipepla californica*) and mountain quail (*Oreortyx pictus*) occur on public lands. California quail occur throughout the Decision Area. Limited numbers of mountain quail inhabit public land in the Sierra Nevada, including Case Mountain, Milk Ranch Peak, Blue Ridge, and Chimney Peak. Nonnative chukar (*Alectoris chukar*) inhabit public lands in the Temblor Range, Taylor Canyon, Freeborn-Hubbard, Kelso Valley, and Chimney Peak areas. Sooty grouse (*Dendragapus obscurus*) can be found on public land in the Case Mountain, Milk Ranch Peak, Blue Ridge, and Chimney Peak areas. Mourning doves (*Zenaida macroura*) occur throughout the Decision Area. Band-tail pigeons (*Columba fasciata*) are primarily found in the Case Mountain, Milk Ranch Peak, Blue Ridge, and San Joaquin River Gorge areas, with limited numbers in the Lake Isabella area. Nonnative wild turkey (*Meleagris gallopavo*) inhabits the South Fork of the Kern River and may occur at the San Joaquin River Gorge and along the North Fork of the Kaweah River. Cottontail (*Sylvilagus* spp.) and jackrabbits (*Lepus* spp.) are dispersed throughout the Decision Area.

Furbearers, including bobcat (*Lynx rufus*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), and grey fox (*Urocyon cinereoargenteus*), inhabit public land throughout the Decision Area. Pine marten (*Martes americana*) is likely to occur on public lands in the Case Mountain, Milk Ranch Peak, and Blue Ridge areas. Beaver (*Castor canadensis*) are known from the Salinas, Kern, and Kaweah Rivers.

Habitat conditions for these species are evaluated using the Standards of Rangeland Health and Proper Functioning Condition of riparian and wetland areas. Since 1998, over 273,500 acres have been evaluated, with 94% rated as healthy; indicating that habitat on BLM lands is in good condition for these species.

Waterfowl, Raptors and Migratory Birds: Limited waterfowl habitat occurs on public land. The main waterfowl habitat is along the Kern, Kaweah, and San Joaquin Rivers and at Atwell Island. Limited numbers of waterfowl also use scattered parcels of public land with pools or ponds throughout the Decision Area. Limited water restricts the amount of waterfowl habitat available; however, 300 acres of new wetlands have been constructed at Atwell Island.

Public lands provide nesting, wintering and foraging habitat for various raptor species. Twenty-nine raptor species are likely to inhabit public lands, including ten owl species. Primary areas for tree- and cliff-nesting species include the Sierra foothills and Sierra Nevada, Taylor Canyon, and scattered parcels in the Coast Range. Ground-nesting species, such as the burrowing owl, occur throughout the San Joaquin Valley. A small disjunct population of burrowing owls was present on public land in the South Lake area, near Lake Isabella. Development on adjacent land and associated human activity may have caused this population to decline or disappear. Wintering areas include the entire Planning Area.

Public lands are used by over 82 species of neotropical migrating birds during migration and for nesting. Important migration corridors include routes along the southern Sierra Nevada and the Transverse Ranges. The quality of habitat is generally related to vegetation structure and unobstructed flyways. Some species, such as the horned lark (*Eremophila alpestris*), require low, open vegetation; while species such as the western meadowlark (*Sturnella neglecta*) require tall, dense vegetation. Other species, like the loggerhead shrike (*Lanius ludovicianus*), require shrubs with a certain structure; while species like the willow flycatcher (*Empidonax traillii*) require dense multi-leveled vegetation associated with special features, such as water. Human activity, and uncontrolled dogs and cats reduce the quality of habitat in certain areas by displacing, disturbing or predating on nesting birds. Livestock grazing that does not meet the Standards of Rangeland Health may prevent establishment of vegetation structure needed by some bird species for nesting and foraging.

3.2.3 AQUATIC, WETLAND, AND RIPARIAN HABITAT

Limited fish habitat occurs on BLM land. The main fish habitat on public land is along the Kern, Kaweah, and San Joaquin rivers. Limited fish habitat may also occur on short segments of rivers or streams that cross public land. Ocean fisheries may occur at Point Sal and Piedras Blancas.

Essential Fish Habitat, as identified by National Marine Fisheries Service (NMFS), does not occur in the Decision Area. Although USGS hydrologic unit 18060006 is identified as Essential Fish Habitat for coho salmon (*Oncorhynchus kisutch*) and a portion of hydrologic unit 18060006 occurs in the Planning Area, coho salmon do not occur south of Santa Cruz County (CDFG 2008a; NMFS 2008).

Aquatic wetland and riparian habitat include streams and springs throughout the Decision Area. Many springs and streams occur in the Sierra Nevada and its foothills. River systems include the San Joaquin River and short segments of the Salinas River, Kern River, Kaweah River, and Tule River. Alkali lakes and ponds include Goose Lake and the Tulare Lakebed. Vernal pools include basalt table land depressions at Kennedy Table and Table Mountain. Public land also includes intertidal habitat above mean high tide at Point Sal and Piedras Blancas.

Efforts to assess the condition of riparian habitat on public lands have focused on the Sierra Nevada region. Only a few riparian areas in the San Joaquin Valley, Coast Range and coast areas have been assessed. Of the stream miles evaluated between 1987 and 2009, 67 miles were in good to excellent condition and 1.3 miles were in poor to fair condition.

Over 1000 springs occur on public lands in the Bakersfield FO. Most of these support an area of riparian vegetation near the water source and many support a linear riparian zone leading downstream from the source. Of the springs evaluated between 1984 and 2009, 80 percent were in good to excellent condition and 20 percent were in poor to fair condition. Concentrated livestock use is typically the cause of the poor or fair condition. Changes in grazing use and protective fencing have been used to improve certain areas.

3.2.4 WEEDS

There are over 200 problematic invasive plants within the Planning Area (Appendix B, Weed Species within the Planning Area), as identified by the California Department of Food and Agriculture and the California Invasive Plants Council (Cal-IPC 2009). These nonnative species compete with native plants for water, light, and soil nutrients. This competition can put vulnerable native species at risk and degrade native habitat (DiTomaso 2000; Dudley and Deloach 2004). Saltcedar degrades riparian systems by shading shorter vegetation, by increasing salt content in the upper levels of the soils, and by drying up soils, sometimes to the extent that surface water is no longer available for animal use. Before the introduction of Mediterranean weeds, habitat now dominated by annual grasses supported native bunchgrass or diverse communities of native herbs.

Some introduced species, notably the annual Mediterranean grasses, facilitate the ignition and spread of wildfires, thereby altering fire regimes and resulting in a conversion of shrub communities into nonnative annual grasslands (Brooks et al. 2004; D'Antonio and Vitousek 1992) and changes in woodland structure or conversion of woodlands into chaparral or grasslands.

Various agents introduce and spread weeds. Seed and viable plant fragments are spread by natural forces, such as wind and water. Animals, both native and domesticated, disperse weeds via fur and feces. Humans spread weeds on their clothes, their work and recreation vehicles, and machinery. Weeds also benefit from soil-disturbing activities, such as those associated with vehicle passage, construction projects, livestock operations, and equestrian travel. The deposition of atmospheric nitrogen as a result of air pollution from automobiles and industrial sources has also favored weedy species over natives (Brooks 2003; Weiss 1999).

Currently, weed control or eradication efforts are focused on 22 species. It is not known how many of the species in Appendix B occur on public lands because systematic inventories have not been done. Most weed inventories have been opportunistic as part of field visits for other purposes. The Atwell Island Project has had specific surveys for weeds. The Bakersfield FO cooperates with other federal, state, and county agencies in weed control and is a member of weed management area organizations for San Luis Obispo, Kern, Kings, Madera, and Tulare Counties.

Ongoing weed concerns include iceplant (*Carpobrotus* spp.) at Point Sal and Piedras Blancas, purple veldt grass (*Ehrharta calycina*) at Los Osos and Point Sal, tamarisk, puncturevine (*Tribulus terestris*), and Russian knapweed (*Acroptilon repens*) at Atwell Island, tamarisk and perennial pepperweed (*Lepidium latifolium*) in the Alkali Sinks ACEC and tree of heaven (*Ailanthus altissima*), purple loosestrife (*Lythrum salicaria*), and perennial pepperweed in the Kern watershed. Weeds continue to be spread and favored by human activities. Some species, especially those with the potential to impact agriculture or degrade natural areas, are primary targets for control and eradication, however, funding has not been sufficient and current economic realities suggest that weed problems will continue. New weeds are to be expected, especially with the changing conditions associated with climate change.

Weed management within the Decision Area is in accordance with national BLM policy (BLM 2007c, 2007d) and follows integrated pest management principles. This is the design and implementation of weed treatment methods based on the biology of the target weed. Weed control includes such methods as hand pulling, mechanical treatment, prescribed fire, flaming, mowing, biological control, and the selective use of herbicides.

Weed control has been an important component in restoring native vegetation within the Decision Area. Before they were seeded with native species, the fallow previously farmed fields at the Atwell Island Project have been burned to remove weeds and weed seed. Other fields are not taken out of alfalfa production until just before planting with natives. In this way, only mesic weeds are present, and they do not survive the drier conditions in the restored native habitat. The restoration of native coastal scrub at the Piedras Blancas Light Station started with the removal of iceplant that had spread across the landscape. Treatment consisted of hand pulling and cutting, in conjunction with the use of herbicides. Because there was still a viable and diverse seed bank beneath the layer of iceplant, most of the restoration occurred naturally once the iceplant was gone and did not require large-scale reseeding with native species.

3.3 CAVE AND KARST RESOURCES

The Federal Cave Resources Protection Act of November 1988 (amended 1990) set forth to protect significant caves on federal lands by identifying their location, regulating their use, requiring permits for removing their resources, and prohibiting destructive acts. The act requires that caves be considered when preparing and implementing resource management plans and allows for specific cave locations to be kept confidential.

From the Federal Cave Resources Protection Act, the BLM developed implementation regulations (CFR 43, Part 37), which provide criteria for identifying significant caves, a process for nominating and designating caves, and management guidance. Caves on public lands may be considered significant for their biotic, cultural, geologic, hydrologic, recreational, educational, or scientific values.

Caves are generally found in karst formations, which are geologic areas, composed of soluble rocks, such as limestone or gypsum. Caves are defined as "any naturally occurring void, cavity, recess, or system of interconnected passages which occurs beneath the earth's surface or within a cliff or ledge (excluding mines, tunnels and other manmade excavations) and which is large enough to permit an individual to enter" (Federal Cave Resources Protection Act, 1990). Areas of karst formation with caves are known to occur within the Planning Area; notable examples include caves within the National Park (Crystal Cave) and National Forest (Boyden Cavern, Church Cave, Packsaddle Cave). These intensively managed caves provide extensive recreational opportunity including interpretation and educational programs. Within the Decision Area, karst formations are known to specifically occur in the vicinity of Lake Isabella along Erskine Creek and the Case Mountain-Milk Ranch Peak area.

The Erskine Creek area is currently a Special Management Area with the cave and karst formation specifically identified for management. Special management applied restricts fluid mineral development, of which there is limited potential, and recommends the area containing known caves for proposal for withdrawal from the mining laws. Caves in this area are important for their biotic values including habitat for Townsend's big-eared bat. The location of specific caves in this area is not widely known, although details of some cave resources (including cave maps) are available in specialized publications.

The karst formation within the Case Mountain-Milk Ranch Peak area is currently managed with the Case Mountain ACEC, although the management doesn't speak specifically to protection of this resource. This area also applies specific management to reduce the impact of certain types of mineral development, of which there is limited potential. Caves in this area are important for their biotic values and geologic structures.

Outside of karst formations caves can also occur in other rock types, including lava flows (of which there are none in the decision area) and granite. There are two identified and named caves within the Sierra Nevada Mountains, occurring in granite formations: Millerton Cave (within the San Joaquin River Gorge SRMA) and Granite Cave (near Lake Isabella).

Millerton Cave is a system of caves occurring within and outside the Decision Area; with the primary access occurring within. These caves are recognized as important for their uncommon geologic nature and recreational value. The cave is widely known and documented in both general and specialized media. Although there are no actual use figures for the cave, the Bakersfield FO routinely processes Special Recreation Permits for cave use by organized groups. Anecdotal reports give credence to the assumption that the cave is widely used by a full range of recreationalists. The cave has been impacted by this use in various ways from installation of "anchor points" for caving equipment to petty vandalism.

Granite Cave, currently managed within the 5 acres Granite Cave Special Management Area, is protected specifically for its cultural resources and value to contemporary Native American peoples. The Special Management Area provides protection of surface disturbance resulting from fluid mineral development (of which there is little potential). The cave entrance has been gated and the gate maintained to protect cultural artifacts within the cave.

3.4 CULTURAL RESOURCES

Cultural resources are locations of human activity, occupation, or use. They include expressions of human culture and history in the physical environment, such as prehistoric or historical period archaeological sites, buildings, structures, objects, districts, or other places. Cultural resources can also be natural features, plants, or animals that are considered to be important to a past or contemporary culture, subculture, or community. A modified BLM Class I review of existing archaeological and historical background information for the Planning Area was completed in order to provide a baseline for the analysis of potential impacts to cultural resources (BLM 2009, g).

Prehistoric resources are recognized as those attributed to Native American groups who occupied the region prior to European contact. Historical period resources are those generally over 50 years old and associated with Native American contact period history, and European, and American exploration, settlement and development. Although a few explorers traversed the region earlier, in California the time of contact between Native Americans and Europeans is generally identified as the 1770s.

Sites of cultural significance to contemporary populations are referred to as Traditional Cultural Properties (TCP). These sites are rooted in the community's history and are important in maintaining cultural identity. Examples of TCPs for Native American communities include natural landscape features, trail systems, places used for ceremonies and worship, places where plants are gathered that are used in traditional medicines and ceremonies, places where artisan materials are found, and places and features of traditional subsistence systems, such as hunting areas.

Authorities for managing cultural resources and programs of historic preservation exist under the

- National Environmental Policy Act (NEPA, Pub. L. 91-190),
- Federal Lands Policy and Management Act (FLPMA, Pub. L. 91-579),
- Archaeological Resources Protection Act (ARPA, 16 USC 470),
- Native American Graves Protection and Repatriation Act (NAGPRA, 25 USC 3001),
- Historic Sites Act of 1935 (Pub. L. 73-292),
- Antiquities Act of 1906 (16 USC 431-433),
- American Indian Religious Freedom Act (AIRFA, Pub. L. 95-341),
- Executive Order 13007 ("Sacred Sites", 61 FR 105), and
- National Historic Preservation Act of 1966 as amended (NHPA, Pub. L. 89-665).

A National Programmatic Agreement among the BLM, the Advisory Council on Historic Preservation (ACHP) and the National Conference of State Historic Preservation Officers (NCSHPO) sets forth the manner in which the responsibilities deriving from the NHPA shall be met. The NHPA describes the process for identifying and evaluating historic properties, for assessing the effects of federal actions on historic properties, and for consulting to avoid, reduce, or minimize adverse effects. The term "historic properties" refers to cultural resources that meet specific criteria for eligibility for listing on the National Register of Historic Places NRHP. Potential adverse effects to historic properties must be considered during the course of any federal action.

In carrying out its responsibilities both under the National Programmatic Agreement and statutory authorities, the BLM has also developed policies and procedures through its directives system (BLM Manual Series 8100-8170) to guide BLM's planning and decision making as it pertains to historic properties and preservation. In addition, pursuant to the National Programmatic Agreement, a *State Protocol Agreement Among the California State Director of the Bureau of Land Management and the California State Historic Preservation Officer and the Nevada Historic Preservation Officer Regarding the Manner in Which the Bureau of Land Management will Meet its Responsibilities Under the National Historic Preservation Act and the*

National Programmatic Agreement Among the BLM, the Advisory Council of Historic Preservation and the National Conference of State Historic Preservation Officers has been developed providing direct guidance for the management of cultural resources within the Decision Area.

Eligibility determinations are usually completed as part of project impact assessments or proactive National Register listing actions. As a result, unless a specific action necessitates this determination; all cultural sites are generally treated as if they are eligible historic properties and afforded the associated emphasis on preservation through avoidance of any potential adverse effect. If a cultural resource is evaluated and does not meet the criteria identified for eligibility under the NHPA, it is not recognized as an historic property and as a result it is not managed for preservation. A similar process applies to the assessment of the eligibility of a TCP.

At an area-wide level, the BLM manages cultural resources through the categorization of evaluated cultural resources according to their nature and relative preservation value. These use categories include scientific use, conservation for future use, traditional use, public use, and experimental use or those resources discharged from management (Table 3.4-1).

Table 3.4-1
Cultural Resource Use Allocations and Desired Outcomes

Use Allocation	Desired Outcome
Scientific use	Preserved until research potential is realized
Conservation for future use	Preserved until conditions for use are met
Traditional use	Long-term preservation
Public use	Long-term preservation, on-site interpretation
Experimental use	Protected until used
Discharged from management	Ineligible cultural resources; no use after evaluation/recordation; not preserved

BLM cultural resource management also identifies specific geographic areas which contain significant cultural resources for additional protective measures. These decisions are based on the presence of known cultural resources, a probability for unrecorded significant resources, imminent threats from natural or human-caused deterioration, or potential conflict with other resource uses.

Within the Decision Area cultural resources are diverse and widely distributed. Due to terrain, geomorphology, access and visibility, and past and current land use patterns only a partial cultural resources inventory of the Decision Area has been completed. Approximately 232,018 acres of BLM managed lands have been surveyed for the possible presence of cultural sites. There are 696 prehistoric and historical period recorded archaeological sites that are administered by the Bakersfield FO, this includes one National Historic Landmark (Walker Pass), and two sites listed on the NRHP (Piedras Blancas Light Station and the South Lake Cultural Area). All cultural sites are manifested by exposed artifacts, features, or structures. These sites are vulnerable to disturbance and destruction through both natural and man-made forces. Impacts resulting from erosion, animal intrusion, and human use, including vandalism and looting, subjects these cultural resources to accelerated rates of deterioration, destruction, or removal from public lands

To address the impacts of livestock grazing an amendment to the State Protocol Agreement between BLM and the SHPO provides specific guidance regarding the potential impacts to cultural resources. This guidance directs that all areas potentially impacted by livestock use, such as at water troughs, salt licks and loafing and trailing areas, are assessed for the presence of cultural sites when grazing permits or leases are renewed. If impacts are discovered, mitigation measures such as fencing, erosion control or water trough removal may be implemented. This assessment includes Native American consultation in order to determine if places of cultural significance to these people are also being affected.

Of the uses impacting cultural resources, OHV-related impacts have been identified as a significant source of damage to archaeological sites and other historic properties, second only to development. The recent study, The Effects of Off-Highway Vehicles on Archaeological Sites and Selected Natural Resources of Red Rock Canyon State Park (Sampson 2007), investigated OHV use and its effects on cultural and natural resources within Red Rock Canyon State Park in Kern County. This study verified that OHV recreation had the unintended consequence of enabling artifact collectors and looters to access vast areas of public land, putting cultural sites at risk. Irresponsible OHV use was documented as the primary cause for the "inadvertent or purposeful destruction of significant cultural features," occurring most frequently in areas close to roads or campgrounds.

The most at risk or sensitive resources are currently managed within ACECs (Map 3.26) or Special Management Areas (Map 3.7) that provide prescriptive management to eliminate incompatible use and alleviate adverse impacts.

3.4.1 PREHISTORIC RESOURCES

There is archaeological evidence of Native American occupation of the region within the Planning Area dating to at least 12,000 years ago. The typical prehistoric archaeological assemblages found in the Planning Area are lithic scatters, flaked stone artifacts, groundstone, shell ornaments, bedrock milling features, shell middens, animal bones, quarry debris, hearths, pictograph and petroglyph sites, and burials. These artifacts and features are most commonly found within the context of habitation sites, ranging from small temporary camps to large village complexes.

Within the Decision Area there are nine areas where significant prehistoric resources or Native American traditional values are present. To protect these vulnerable resources, the details and exact locations of archaeological sites within these areas is withheld from public disclosure, pursuant to the National Historic Preservation Act of 1966, as amended, Section 304.

Point Sal – managed as an ACEC. This unspoiled portion of the Central California coastline contains a wealth of information for scientific research, particularly with regard to themes of marine subsistence, responses to environmental change and the development of community organization

Goose Lake – managed as an ACEC. This area is representative of the large scale lake shore environments once found throughout the San Joaquin Valley which played an important role in regional cultural development.

Chico-Martinez – managed as an ACEC. The attraction of the many springs and rock formations in this area has contributed to its important role in regional prehistory.

Atwell Island – portions of this area contain a significant remnant of the once widespread lakeshore environments which played an important role in San Joaquin Valley regional cultural development.

San Joaquin River Gorge – managed as a SRMA This area plays an important role in local Native American cultural practices including traditional resource use.

Horse Canyon – managed as an ACEC. This area is associated with important prehistoric, ethnographic and contemporary Native American traditional cultural values. Of specific concern is the unregulated causal collecting of agates and other minerals that has occurred within the Horse Canyon area for many years which has resulted in damage and destruction of cultural resources.

Huasna Peak – contemporary Chumash informants have identified the area around Huasna Peak as having especially significant spiritual values. The area is currently being managed as a BLM SMA for the protection of the natural landscape in order to preserve the Native American traditional values associated with it.

South Lake Cultural Area – managed as a BLM SMA. This area is associated with important prehistoric, ethnographic and contemporary Native American cultural values.

Granite Cave – managed as an SMA. This area is associated with particularly important cultural values for contemporary Native Americans.

Los Osos - This area is associated with important prehistoric, ethnographic and contemporary Native American traditional cultural values.

3.4.2 HISTORIC RESOURCES

Spanish exploration and settlement in the late eighteenth century, and later the establishment of missions, initiated the historical period in the Planning Area. This ushered in many changes in indigenous demographics, land use patterns, traditional practices, and the resulting archaeological site types.

Subsequent Anglo settlement in the early nineteenth century focused on ranching, timber harvesting, and mining with the arrival of the first American explorers. By the end of the nineteenth century, disease and subjugation had decimated the Native American people. The subsequent developments of the mineral industries (oil and gold) and large-scale agriculture during this period were highly significant in shaping the economic development and demographic history of the Planning Area. Historical period site types found in the region reflect this emphasis, the most common being infrastructure related to mining and oil field development as well as, agriculture and ranching.

Within the Decision Area there are five locations identified for important historical period values. These include:

Piedras Blancas – managed as an ONA. The facility is listed on the NRHP as a historic district (P-40-040855) and is recognized for its importance in early coastal navigation, as well as maritime and onshore trade and commerce (see Outstanding Natural Areas Section). An MOA between the BLM and the SHPO exists for the management of cultural resources including Native American values.

Atwell Island – The area contains an adobe brick building constructed in 1900. The adobe still stands, with some modifications, and is of local historical interest because it was constructed before the founding of the nearby towns of Alpaugh and Allensworth.

Walker Pass National Historical Landmark – The area is valued for historical important events in American history that occurred at this location. The pass was used repeatedly by early explorers as a route through the Sierra Nevada. The area is being managed as a BLM SMA that direct management to protect the characteristics of the natural landscape and viewshed, which contributed toward its designation as a National Historical Landmark.

Advance Colony – Located on the North Fork of the Kaweah. This site was the location of an early settlement of nineteenth century "utopian socialists." The North Fork of the Kaweah is managed as a BLM SMA to protect these cultural resources, while providing for river access.

Keyesville – Contains one of the most significant concentrations of historical remains within the Planning Area. This includes standing structures, such as the Walker cabin and barn, home of early settlers to the region, the Keyes mine, and portions of the Keyesville village, cemetery, and fort. The Keyesville area played a significant role in the early American westward expansion, settlement, and mineral exploitation in California. The area is managed as a BLM SMA to protect these cultural resources while providing for recreational use.

3.4.3 ETHNOGRAPHIC DOCUMENTATION AND NATIVE AMERICAN CONSULTATION

Native American traditional territories located within the Planning Area include areas occupied or used by the Salinan, Chumash, Esselen Costanoan, Yokut, Mono, Tubatulabal, Kawaiisu, Shoshone, Paiute, and Kitanemuk people.

There are eight federally recognized tribes whose tribal lands are within the Planning Area; the Picayune Rancheria of Chukchansi Indians, the North Fork Rancheria of Mono Indians and members of the Tule River Reservation, the Cold Springs Rancheria, the Big Sandy Rancheria and the Table Mountain Rancheria, the Santa Ynez Band of Chumash Indians, and the Tachi Yokuts of the Santa Rosa Rancheria. Ongoing consultation with the descendants of these Native American tribes is important in identifying potentially important cultural or religious sites, including TCPs.

3.5 LANDS WITH WILDERNESS CHARACTERISTICS

Public lands with wilderness characteristics (as defined in Section 2 of the Wilderness Act, 16 U.S.C. § 1131(c) provide social, cultural, economic, scientific, and ecological benefits for present and future generations. Many people and communities value these lands for hunting and fishing, observing wildlife, hiking, and other non-motorized and non-mechanized recreational uses. Lands with wilderness characteristics are also important for their scientific, cultural, and historic objects, which further our understanding of human and natural history, the functions of healthy ecosystems, and how human activities change our world. They also provide a variety of valuable ecosystem services, including carbon sequestration, watershed protection, and air purification, and may contain habitat for numerous threatened and endangered species and other rare biological resources worthy of protection.

In accordance with Section 201 of FLPMA, the BLM is required to maintain a current inventory of public lands under its jurisdiction and determine within that inventory those lands possessing wilderness characteristics outside of Wilderness Study Areas or units of the National Wilderness Preservation System. These lands are described as "Lands with Wilderness Characteristics (LWC)". The inventory is completed only in consideration of the existing conditions as opposed to potential conditions that may result from a future planning decision.

In addition to review and maintenance of existing LWC data, analysis of: (1) new data concerning resource conditions for lands previously determined not to poses LWC; (2) newly acquired lands; and (3) citizen information (public LWC nominations) meeting the minimum standard for further review (Appendix K), is performed in conjunction with the land use planning process to establish an updated, current LWC inventory.

To address LWC through this planning effort, the Bakersfield FO: (1) reviewed and updated the existing inventories of wilderness characteristics, particularly for lands outside of designated Wilderness and WSAs, including the Final Intensive Inventory of Public Lands Administered by BLM California outside the California Desert Conservation Area (BLM, 1979); (2) inventoried lands more recently acquired ; and (3) reviewed five nominations made through the scoping process (although not meeting the minimum standard for further review) consistent with Section 201 of FLPMA. Table 3.5-1, identifies the results of the aforementioned LWC inventory review. Additional detail for each area is located in Appendix K.

Appendix K includes the complete inventory and describes the considerations taken in making the determinations, including the area's roadless nature, overall size (both in isolation and when considered with adjacent lands), presence of naturalness, opportunities to experience solitude and participate in primitive unconfined recreation, and the practicality and ability of managing for wilderness characteristics. Although the inventory determines that there are approximately 16,190 acres of LWC, only about 3,630 is deemed to be manageable in an unimpaired state due to the size limitation of the parcel and/or proximity to urban development of the other areas.

Table 3.5-1
Areas Reviewed for LWC

Inventory Number[9]	Property Name	Acreage	LWC Determination
CA-010-002 / CAC060-002	Hopper Mountain	783	LWC not present
CA-010-007 / CAC060-007	Tepusquet Peak	1,024	LWC not present
CA-010-016 / CAC060-016	Sespe-Frazier	243	no longer public lands
CA-010-017 / CAC060-017	Orchard Peak	1,840	LWC not present
CA-010-028 / CAC060-028	Bear Mountain[10]	2,226	LWC present in areas (approximately 2,000 acres)
CA-010-035 / CAC060-035	Temblor Range	~15,000	LWC not present or impractical to manage
CA-010-036 / CAC060-036	Spoor Canyon / Public Proposal I	240	LWC not present or impractical to manage
CA-010-037 / CAC060-037	Cuyama / Public Proposal II & III	1,014	LWC not present or impractical to manage
CA-010-040 / CAC060-040	Freeborn/Hubbard	7,192	LWC not present or impractical to manage
CA-010-052 / CAC060-052	Walker Basin/Caliente Creek	360	LWC not present or impractical to manage
- / CAC060-201	Lamont Meadow	218	LWC present / adjacent Wilderness
- / CAC060-202	Edgar Ranch West	268	LWC present / adjacent Wilderness (Sec. 6)
- / CAC060-203	Big Pine Meadow	644	LWC present / adjacent Wilderness
- / CAC060-204	Roszewska Ranch	418	LWC present / adjacent Wilderness
- / CAC060-205	Chappell, D Parcel	80	LWC present / adjacent Wilderness
- / CAC060-206	Cyrus Canyon Donation	1501	LWC present but impractical to manage
- / CAC060-207	Craig Ranch	967	LWC not present or impractical to manage
- / CAC060-208	Piedras Blancas Light Station	19	LWC not present
- / CAC060-209	Atwell Island	7,935	LWC not present
- / CAC060-210	Patterson Bend	2,367	LWC present (approximately 2,200 acres) but impractical to manage
- / CAC060-211	National Petroleum Reserve II	10,777	LWC not present
- / CAC060-212	Public Proposal IV (Santiago Creek)	471	LWC not present or impractical to manage
- / CAC060-213	Public Proposal V – Bright Star Additions[11]	3,651	LWC present (approximately 2,100 acres) but impractical to manage

[9] Old / New inventory numbers (updated to match current numbering systems)
[10] 13,134 acres of the original study area designated as the Chimney Peak Wilderness area in 1994.
[11] 5,231 acres of the original proposal are within the Piute Cypress ISA WSA.

3.6 PALEONTOLOGICAL RESOURCES

Paleontological resources are crucial to our understanding of several aspects of biological and geological history. Climate change studies, tectonics and biological evolutionary processes are distinct scientific disciplines which rely on the information provided by paleontological resources.

There are a variety of paleontological resources in the Planning Area, including plant and animal fossils (both vertebrate and invertebrate) of marine and terrestrial origin. Some of these resources have significant recreational, scientific, and educational value of which several have provided time-rock correlations that have worldwide strato-chronographic and paleo-ecological ramifications. Paleontological localities in the Planning Area generally encompass a mix of public and private lands requiring collaboration and cooperation for successful management and preservation of these resources.

To ensure that significant paleontological resources in the Decision Area are managed correctly the paleontology program adheres to policy and guidance for avoiding or mitigating potential impacts. Paleontological resources are managed under the following principal authorities:

- Paleontological Resources Preservation Act of 2009 (Sections 6301-6312 of the Omnibus Public Lands Act of 2009, 16 USC 470aaa); mandating the management and preservation of paleontological resources on public land using scientific principles and expertise. Programs to increase public awareness about the significance of paleontological resources are also mandated, and civil and criminal penalties are provided for prohibited acts of vandalism and theft of paleontological resources and other violations of the act.
- The Federal Land Policy and Management Act of 1976 (P.L. 94-579); requiring that the public lands be managed in a manner that protects the "quality of scientific" and other values. The Act also requires the public lands to be inventoried and provides that permits may be required for the use, occupancy and development of the public lands.
- The National Environmental Policy Act of 1969 (P.O. 91-190); requiring that "important historic, cultural and natural aspects of our national heritage" be protected, and that "a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences…in planning and decision making" be followed.

Additional regulations address the casual collection of invertebrate and plant fossils (43 CFR 8365.1-5(b)), and the free use collection of petrified wood (43 CFR 3622(a)). In addition all authorized surface disturbing activities carry a discovery clause which states that in the event of the discovery of paleontological remains during the course of project construction, all work at the location will cease until appropriate BLM staff have been contacted, the significance of the remains are assessed and appropriate avoidance or mitigation actions are implemented.

The BLM uses the Potential Fossil Yield Classification (PFYC) system to classify paleontological resource potential (Table 3.6-1). This allows for assessing possible resource impacts and mitigation needs for actions involving surface disturbance, land tenure adjustments, and land use planning. The PFYC system provides a uniform method to assess potential occurrences of paleontological resources and to evaluate possible impacts using geologic units. Occurrences of paleontological resources are closely tied to the geologic units, such as formations, members, or beds that contain them. The probability of finding paleontological resources can be broadly predicted from the geologic units present at or near the surface. It is intended to be a broad approach for planning efforts and as an intermediate step in evaluating specific projects.

Table 3.6-1
Potential Fossil Yield Class Descriptions

PFYC	Potential	Description
Class 1	**Very Low**	Geologic units not likely to contain recognizable fossil remains (igneous, metamorphic, or Precambrian rock units).
Class 2	**Low**	Sedimentary geologic units not likely to contain vertebrate fossils or scientifically significant invertebrate fossils.
Class 3	**Moderate** or **Unknown**	Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence, or sedimentary units of unknown fossil potential.
Class 4	**High**	Geologic units containing a high occurrence of significant fossils. Vertebrate fossils or scientifically significant invertebrate or plant fossils are known to occur and have been documented but may vary in occurrence and predictability. Surface-disturbing activities may adversely affect paleontological resources in many cases.
Class 5	**Very High**	Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils and that are at risk of human-caused adverse impacts or natural degradation.

Using the PFYC system, geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential for the occurrence of these resources.

The PFYC system is not intended to be applied to specific paleontological localities or small areas within units. Although significant localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher class; instead, the relative abundance of significant localities is intended to be the major determinant for the class assignment.

The BLM has classified formations in the Planning Area from existing data using the PFYC system. Those formations containing paleontological resources currently known to occur within the Decision Area (Table 3.6-2) are subject to direct BLM management.

Table 3.6-2
Paleontological Resources Found within Geologic Formations that Outcrop within the Decision Area

Name of Locality	County	Formations	Age	Important Fossils	PFYC Class	Acres within Decision Area
Chico Martinez-Zemorra Creek	Kern	Type locality for the Gould and McClure Members of the Monterey Formation, the Button Bed member of the Temblor Formation, and Phacoidies member of the Carneros Sandstone.	Miocene and Eocene	Marine vertebrates and invertebrates	4	1,949
Kettleman Hills North Dome	Fresno, Kings	Tulare, San Joaquin, Etchegoin	Late Hemphillian Pliocene, Late Miocene	Oysters, barnacles, other marine invertebrates	4	13,662
Maricopa Brea Pits	Kern	Tar Seep Deposit in Monterey Formation	Pleistocene	Wolf, rat, bird, saber-tooth cat, insects	4	52
Paradise Cove	Kern	French Gulch	Triassic	Fossil leaves in caliche	3	293
Reef Ridge	Fresno	Antelope Shale and Point of Rocks. Type locality for the Reef Ridge member of Monterey Formation	Miocene and Eocene	Marine vertebrates and invertebrates	3	540
Sand Canyon-Cache Creek (Horse Canyon)	Kern	Bopesta, Kinnick	Middle Miocene Hemingford-ian	Terrestrial vertebrates	4	887
Shark Tooth Hill	Kern	Round Mountain Silt of the Temblor Formation	Pliocene Middle Miocene Barstovian	Whale, shark, marine invertebrates, seal, pelicans also terrestrial fossil acorns, horse	4	2,653
Tierra Redonda Mountain	San Luis Obispo	Vaqueros	Miocene	Marine vertebrates and invertebrates	4	158
Kern River Turritella Beds	Kern	Olcese	Middle Miocene	Marine invertebrates	3	40

There are no PFYC Class 5 formations identified within the Decision Area. There are 19,361 acres of PFYC Class 4 formations at six localities within the Decision Area including within the Tierra Redonda, Horse Canyon, Kettleman Hills and Chico Martinez ACECs. These significant paleontological values contribute to the ACEC designation for these areas. The remaining fossil bearing formations scattered throughout the Decision Area comprise approximately 873 acres and have all been assigned a PFYC Class 3 designation.

There are several significant paleontological formations that occur within the Planning Area but are not found within the Decision Area. These include the Miocene paleontological deposits of the Bena Petrified Forest, Caliente Mountain-Padrone Springs, Comanche Point, Cuyama Phosphate, and Heald Peak localities. Pliocene deposits occur at the San Emigdio Ranch and Horn Toad Hills localities. Eocene, Cretaceous and Triassic deposits are found at the Wheeler Gorge, Turney-Panoche Hills and Lindsey localities respectively. Consideration of these formations during the planning process provides a clearer picture of potential indirect and cumulative impacts to these paleontological resources located outside of the Decision Area as a result of federal actions authorized by the BLM.

Paleontological resources are subject to damage and destruction as a result of both authorized and unauthorized ground surface disturbing activities. This includes the illegal collection of significant paleontological resources which may occur at localities in easily accessible areas. Of specific concern is the unregulated causal collecting of agates and other minerals that has occurred within the Sand Canyon-Cache Creek locality for many years which has resulted in damage and destruction of these sensitive resources.

In most areas, BLM regulation regarding the management of paleontological resources allows for the casual unpermitted collection of reasonable amounts of common invertebrate and plant fossils, including petrified wood. Casual collecting in Section 6301(1) of OPLMA-PRP means:

"… the collecting of a reasonable amount of common invertebrate and plant paleontological resources for non-commercial personal use, either by surface collection or the use of non-powered hand tools resulting in only negligible disturbance to the Earth's surface and other resources."

However the excavation or collection of all vertebrate and uncommon invertebrate fossil resources requires a BLM Paleontological Resource Use Permit which is subject to BLM standards of scientific research and paleontological collections management.

3.7 SOIL RESOURCES

Soil resources provide the foundation for vegetation and biological communities, and, safeguard water and air quality. Terrestrial and aquatic systems depend on the presence of suitable quality soils for their function; therefore, maintaining soil attributes, such as water holding capacity, texture, erosion potential, and slope, are important to BLM management decisions.

Soils are the result of complex interactions among parent material (geology), climate, topography, organisms, and time. Soils are classified by the degree of development into distinct layers or horizons and their prevailing physical and chemical properties. Similar soil types are grouped into soil orders, based on defining characteristics, such as organic matter and clay content, amount of mineral weathering, water and temperature regimes, depth, drainage, slope, particle size or base saturation that give soil its unique properties. Natural Resources Conservation Service (NRCS) soil surveys, which identify limiting factors and include interpretive ratings, help guide a variety of management decisions, such as placement of fencing for livestock grazing management, determining route designations (areas suitable for on- and off-road vehicle and OHV travel), and trail, road, and building/facility construction associated with BLM actions and BLM-authorized actions.

Detailed NRCS soil surveys are available for most of the Planning Area, however, these are too specific for analysis at the RMP scale. There are hundreds of individual soil map units in the Planning Area that will be used at project level planning.

The Bakersfield FO currently uses the Standards of Rangeland Health across the Decision Area to manage public lands so that soils exhibit functional biological and physical characteristics that are appropriate to soil type, climate, and land form. Best Management Practices (BMPs, see Appendix L) for soils are applied to BLM actions and authorizations to limit compaction and reduce the potential for accelerated erosion through minimizing surface disturbance and reclaiming disturbed sites.

Special soils that require attention for management include: those that support biological crusts, prime or unique farmland soils; serpentine soils; those identified as susceptible to compaction and accelerated erosion; and valley fever endemic soils.

3.7.1 BIOLOGICAL CRUSTS

In arid and semiarid lands throughout the world, vegetation cover is often sparse or absent. Nevertheless, in open spaces between the higher plants, the soil surface is generally not bare of life but is covered by a community of highly specialized organisms (see Biological Resources Section). Biological soil crusts weave through the top few millimeters of soil, gluing loose particles together and forming a matrix that stabilizes and protects soil surfaces from erosive forces; increases soil fertility and moisture retention; and limits spread of nonnative plants. Crust integrity may be physically disturbed by various activities, including construction associated with energy and mineral development, fire suppression, livestock grazing, and recreation activities. When the integrity of the crust is broken, the soil is more susceptible to wind and water erosion.

3.7.2 PRIME OR UNIQUE FARMLAND SOILS

Prime farmlands are lands identified by the United States Department of Agriculture as having the best combination of physical and chemical characteristics for producing our nation's food, feed, forage, fiber, and oilseed crops. This land must also be available for these uses. The availability for these uses varies according to ownership and access. There are many soils on split-estate lands

within the Decision Area that are designated as prime farmland, prime farmland, if irrigated, unique farmland, and/or soils of statewide importance. Most soils classified as prime farmland occur within the San Joaquin Valley (Map 3.8); however, generally public lands are not used for agricultural crops.

3.7.3 SERPENTINE SOILS

Serpentine soils are derived from serpentine, a type of rock with high magnesium to calcium ratios that was pushed up onto the continent during the subduction of the oceanic crust from the west. Serpentine soils are often chemically different from the surrounding soils with high amounts of magnesium, nickel, cobalt, chromium, and iron, while being poor in other plant nutrients, such as nitrogen and phosphorus. Therefore, the plants found on serpentine soils vary from those found on the surrounding soils. While serpentine soils occupy only one percent of the land area in California, 10 percent of native plant species—known as serpentine endemics—are adapted to these soils. Many serpentine endemics are rare or endangered (see Biological Resources Section).

In California, these soils largely occur in the foothills of the Sierra Nevada and the Inner Coast Ranges from San Luis Obispo County north to the Oregon border in the Klamath Mountains (USDA 1980). Within the Bakersfield FO Planning Area serpentine soils occur on approximately 16,000 acres in the southern Sierra Nevada and Coast Ranges (Map 3.9); of which, approximately 900 acres occur on public lands.

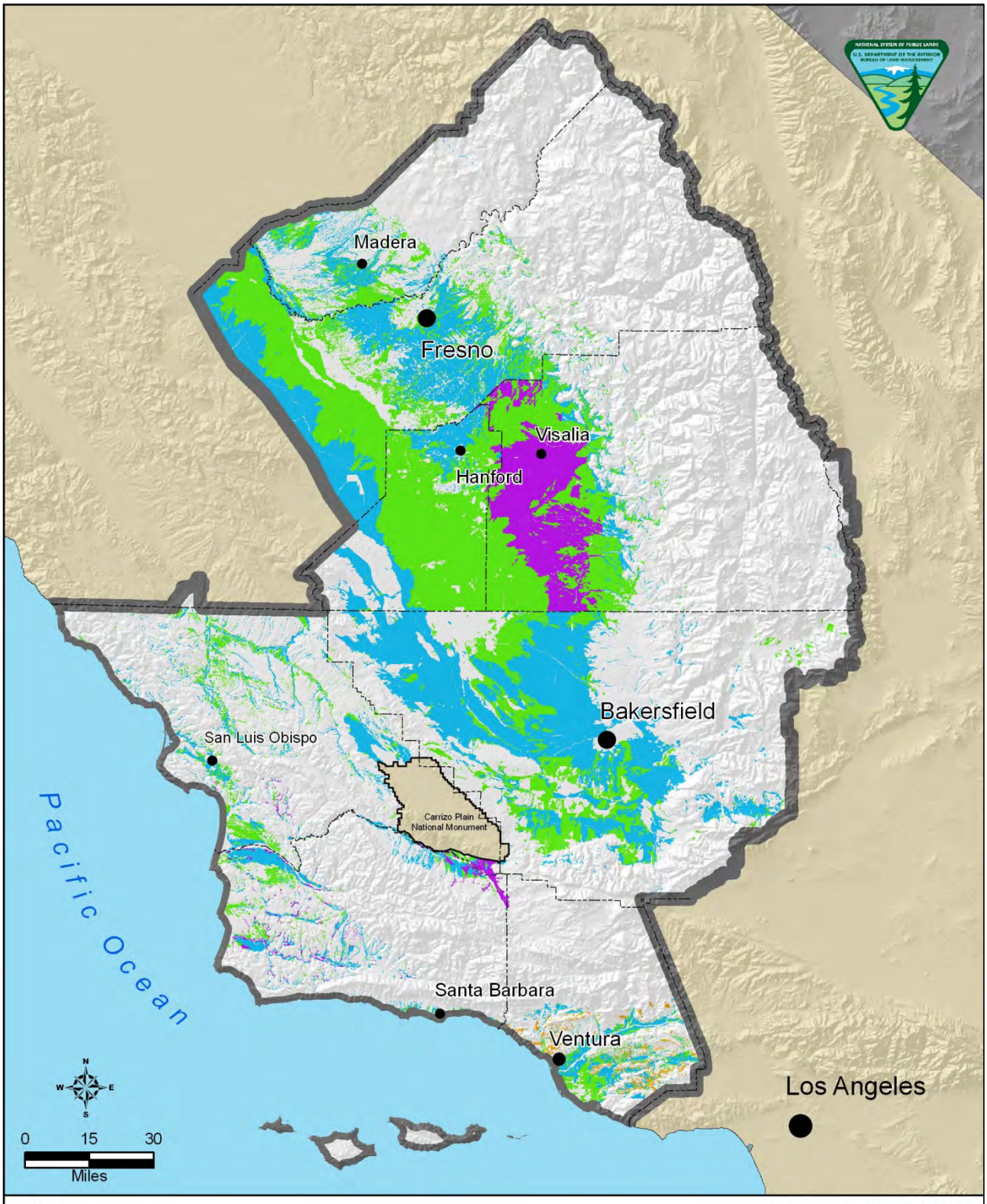
Serpentine soils can pose a risk to public health and safety as a result of their potential to contain Naturally Occurring Asbestos (NOA) (see Public Health and Safety Section).

3.7.4 SOIL COMPACTION

Soil compaction is a complex process that depends on various soil characteristics such as particle sizes and proportions, organic matter content, structure of the soil horizon. Soils with uniformly coarser textured particles (sands) tend to be less susceptible to compaction than finer-textured soils and soils with a diverse range of soils particle sizes. The risk for compaction is greatest when soils are wet. Soil compaction occurs in response to pressure exerted by machinery, animals, or pedestrian traffic. Compacted soil usually allows less water to infiltrate, resulting in greater overland flow of water for longer periods of time. Increased and intensified overland flow has greater energy to detach and transport soil particles, resulting in accelerated soil erosion and loss.

3.7.5 SOIL EROSION

Soil erosion is a naturally occurring process that is influenced by climate, topography, soil properties, vegetative cover, and land use. Of concern, however, is accelerated erosion resulting in larger quantities of soil lost by water or wind erosion. Areas identified as having potential for accelerated erosion include those with slopes greater than 50 percent or soils interpreted as prone to erosion with slopes greater than 30 percent. These areas are mapped using the NRCS soil surveys that include data on erodibility (K factor) for some soils (Map 3.10).



Legend

Bakersfield Field Office

County Boundary

Prime or Important Farmland

Farmland of statewide importance

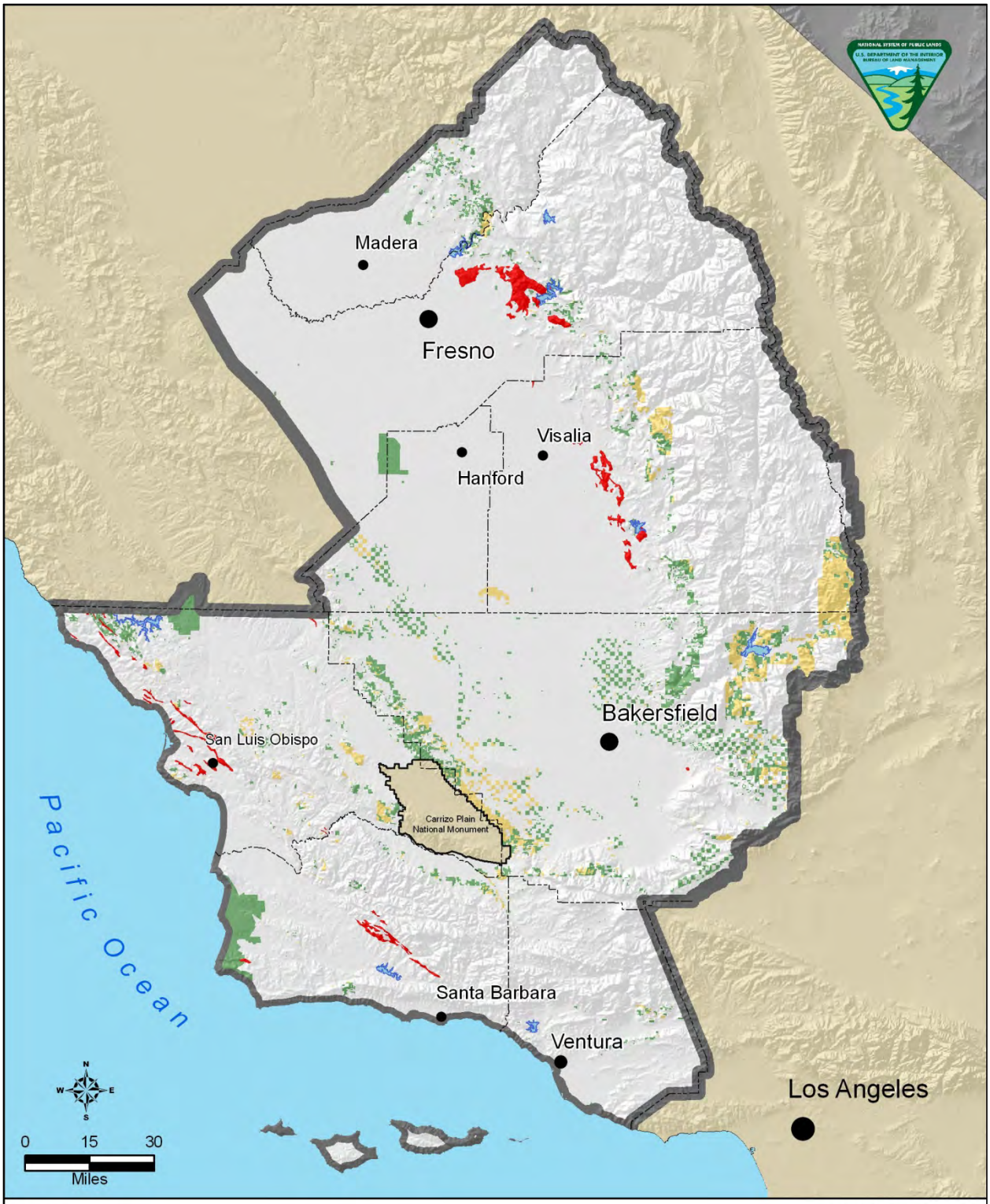
Farmland of local importance

Prime farmland if irrigated

Prime farmland if irrigated and protected from flooding

Prime or Important Farmland
Bureau of Land Management
Bakersfield Field Office

Map 3.8



Legend

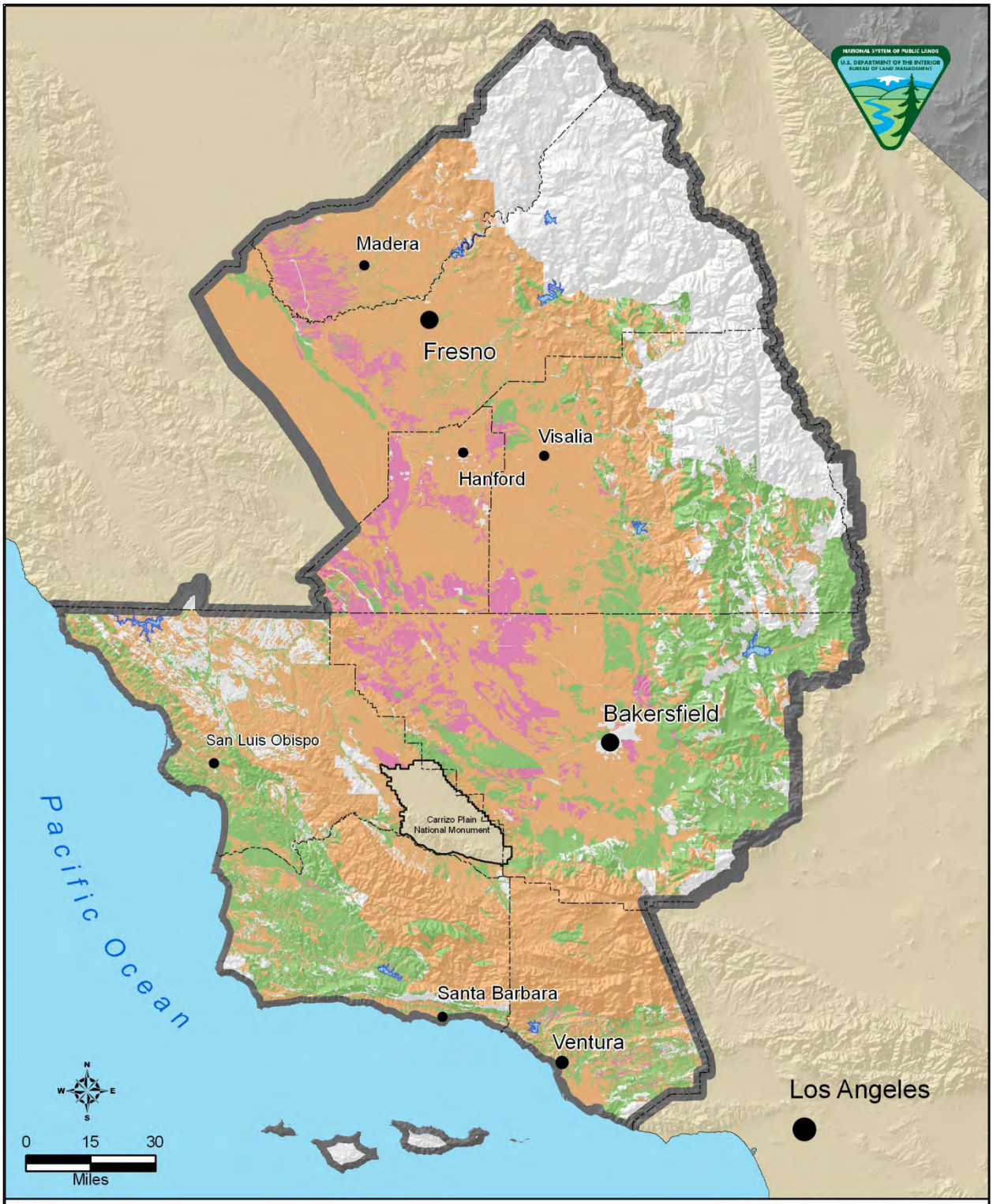
- Bakersfield Field Office
- County Boundary
- Serpentine Soils

Bureau of Land Management

- Public Lands
- Federal Mineral Estate

Serpentine Soils
Bureau of Land Management
Bakersfield Field Office

Map 3.9



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Bakersfield Field Office

County Boundary

Susceptibility to Erosion

High: K factor > .4

Moderate: K factor .24 - .4

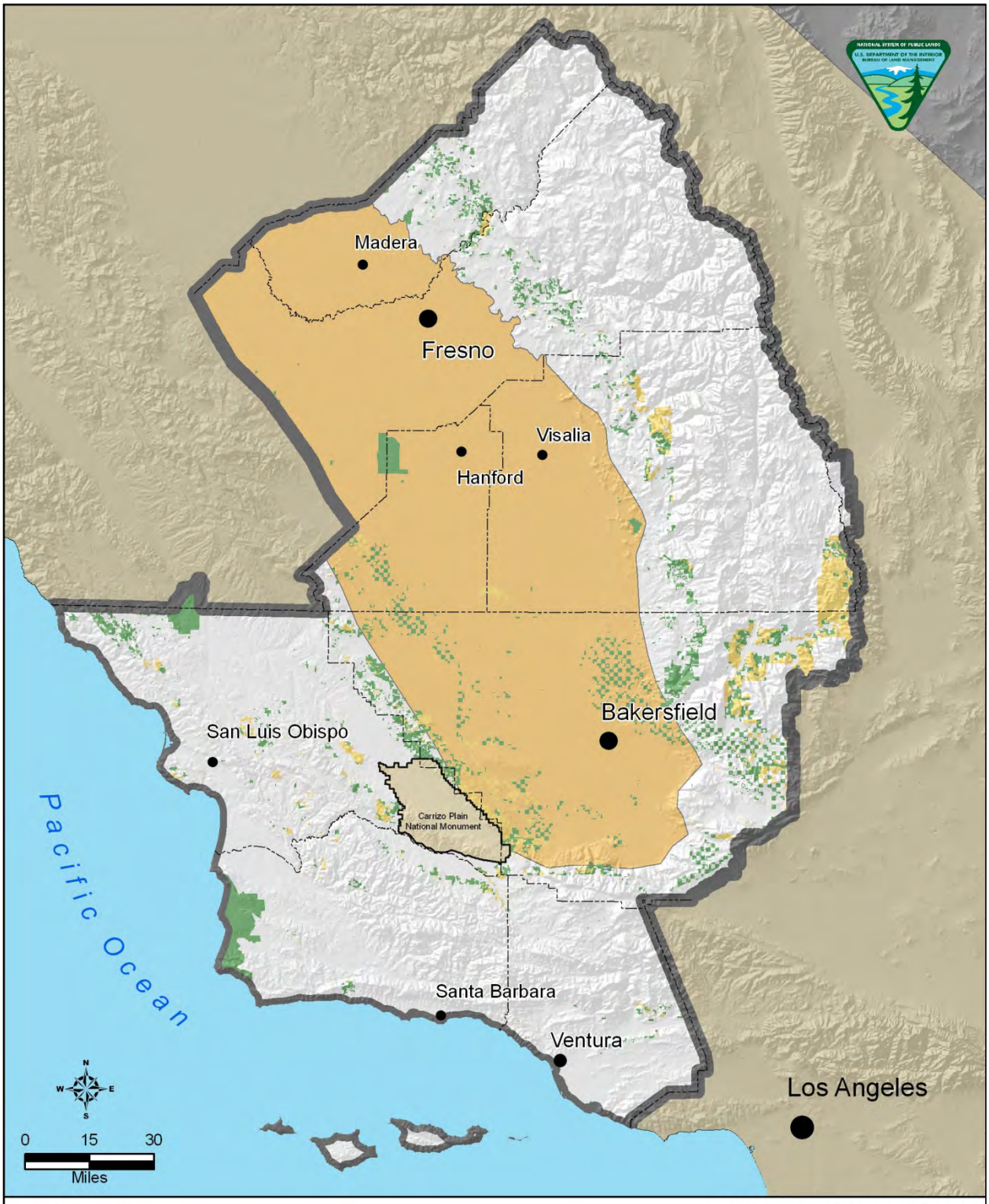
Low: K factor .02 - .24

Soils Susceptible to Erosion
Bureau of Land Management
Bakersfield Field Office

Map 3.10

3.7.6 VALLEY FEVER ENDEMIC SOILS

Valley Fever (Coccidioidomycosis) is a disease caused by the inhalation of the spores of *Coccidioides immitis*, a fungus which inhabits soils of the southwestern Unites States. *C. immitis* is endemic in parts of Arizona, California, Nevada, New Mexico, Texas and Utah (Map 3.11), however their distribution and recognition throughout the entire endemic area is poorly known (USGS 2000). Portions of the Planning Area are known endemic areas for valley fever; in 1993 the Center for Disease Control and Prevention (CDC) declared valley fever an epidemic in portions of California (Kern County). *C. immitis* grows as mold in the upper 5-20 cm of the soil in endemic areas and upon maturity can be released into the air as spores during surface disturbing actions; including wind episodes (see *Public Health and Safety* Section). Some key factors that influence the growth of *C. immitis* include temperature, the amount and timing of rainfall and available moisture (humidity), soil texture, alkalinity, salinity, and the degree of exposure to sunlight and ultraviolet light. The risk of infection as a result of inhalation can be reduced by implementing dust control measures.



Legend

Bakersfield Field Office

County Boundary

Decision Area

Public Lands

Federal Mineral Estate

Valley Fever Endemic Soils

Valley Fever Endemic Soils
Bureau of Land Management
Bakersfield Field Office

Map 3.11

3.8 VISUAL RESOURCES

Visual resources refer to the visible features and objects, natural, man-made, moving and stationary, which comprise the character of the landscape observed from a given location. These resources contribute to the scenic or visual quality/visual appeal of the landscape. Visual impact is the creation of an intrusion or perceptible contrast that affects the scenic quality of a landscape. A visual impact can be perceived by an individual or group as either positive or negative, depending on a variety of factors or conditions, such as personal experience, time of day, and weather/seasonal conditions.

3.8.1 VISUAL RESOURCE MANAGEMENT SYSTEM

The BLM's Visual Resource Management (VRM) System provides a way to identify and evaluate scenic values to determine the appropriate levels of management (BLM 1984d). It provides a way to analyze potential visual impacts, apply visual design techniques to ensure that resource uses and management activities are in harmony with their surroundings, and to meet the assigned VRM Class objectives. VRM is a tool to identify and map essential landscape settings on both public lands surface and federal mineral estate to meet public and community preferences and recreational experiences.

The VRM system consists of an inventory stage (visual resource inventory) and an analysis stage (visual contrast rating). The inventory stage involves identifying the visual resources of an area and assigning them to inventory classes using the BLM's visual resource inventory (VRI) process. The process involves rating the visual appeal of a tract of land, measuring public concern for scenic quality, and determining whether the tract of land is visible from travel routes or observation points. The process is described in detail in BLM Handbook H-8410-1, Visual Resource Inventory (BLM 1986b).

The area's visual resources are then assigned to management classes with established objectives (Table 3.8-1) in the RMP in conformance with other land use allocations made in the plan (Washington Office Information Bulletin Number 98-135, 1998). VRM classes may differ from VRI classes, based on management priorities for land uses. These area-specific objectives provide the standards for planning, designing, and evaluating future management projects.

The VRM Class assigned to an area provides the standard by which to measure proposed resource uses and management activities and determine if visual impacts would meet the management objectives, or if design adjustments (Best Management Practices for VRM) would be required. A visual contrast rating process is used for this analysis, which involves comparing the project features with the major features in the existing landscape using the basic design elements of form, line, color, and texture. This process is described in BLM Handbook H-8431-1, Visual Resource Contrast Rating (BLM 1986c).

Table 3.8-1
BLM Visual Resource Management Class Descriptions

VRM Class	Class Objective
I	Preserve landscape character. This class provides for natural ecological changes but does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
II	Retain existing landscape character. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract a casual observer's attention. Any changes must repeat the basic elements of line, form, color, and texture found in the predominant natural features of the characteristic landscape.
III	Partially retain existing landscape character. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate a casual observer's view. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
IV	Provide for management activities that require major modification of the landscape character. The level of change to the characteristic landscape can be high. Management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repetition of the basic landscape elements.
Rehabilitation Areas	Areas in need of rehabilitation should be flagged during the inventory process. The level of rehabilitation is determined through the RMP process by assigning the VRM approved for that particular area.

Source: BLM 1986b

3.8.2 CURRENT CONDITIONS

3.8.2.1 General Visual Setting

The decision area includes parts of the Central Coast, parts of the San Joaquin Valley (the southern portion of the Central Valley), and western portions of the southern Sierra Nevada. These areas are in the Central Coast, the San Joaquin Valley, and Sierra bioregions.

Central Coast Bioregion

The Central Coast bioregion extends some 300 miles from just north of Santa Cruz to just south of Santa Barbara and inland to the floor of the San Joaquin Valley (California Natural Resources Agency 2009a.). The region includes many state parks and other recreational attractions. The geography offers coastal mountain ranges, including the Santa Lucia and Santa Ynez, and coastal sand dunes. Vegetation includes chaparral, mixed hardwood forests, and oak woodlands. The Los Padres National Forest covers much of the southern portion of the bioregion, and the Salinas and Cuyama Rivers feed the bioregion's two major watersheds. The Central Coast bioregion features coastal scenery, farmland, and vineyards and a climate that is mild, seasonally moist, and sometimes foggy.

San Joaquin Valley Bioregion

The San Joaquin Valley bioregion is a broad flat valley ringed by the Diablo and Coast Ranges on the west and the Sierra Nevada foothills on the east (California Natural Resources Agency 2009b). At its northern end, the San Joaquin Valley bioregion borders the southern end of the Sacramento Valley bioregion. Its eastern boundary joins the southern two-thirds of the Sierra bioregion.

The San Joaquin Valley bioregion is hot and dry in summer, with long sunny days (California Natural Resources Agency 2009b). Winters are moist and often blanketed with heavy fog. Habitat includes vernal pools, valley sink scrub and saltbush, freshwater marsh, grasslands, arid plains, orchards, and oak savannahs. Much of the historic native grassland, woodland, and wetland in the Central Valley have been converted to farmland. The major river is the San Joaquin, with tributaries of the lower Stanislaus, Tuolumne, Merced, and Fresno Rivers. The southern portion of the bioregion includes the Kings, Kaweah, and Kern Rivers, which drain into closed interior basins. No significant rivers or creeks drain into the valley from the Coast Range.

Historically, millions of acres of wetlands flourished in the bioregion, but stream diversions for irrigation dried up all but about five percent (California Natural Resources Agency 2009b). Remnants of this vanishing habitat are protected in the San Joaquin Valley bioregion in publicly owned parks, reserves, and wildlife areas.

Sierra Bioregion

The Sierra bioregion is a vast and rugged mountainous area, extending approximately 380 miles along California's eastern side, and is largely contiguous with Nevada (California Natural Resources Agency 2009c). The bioregion extends from the northern edge of the Plumas National Forest south to Tejon Pass in the Tehachapi Mountains, about 30 miles southeast of Bakersfield. The northern half of the Sierra bioregion is bordered by the Nevada state line to the east and the Sacramento Valley floor to the west. The southern half of the Sierra bioregion extends westward from the Nevada state line and the western edge of the BLM's California Desert Conservation Area to the San Joaquin Valley floor.

Named for the Sierra Nevada range it encompasses, the Sierra bioregion includes forests, lakes, and rivers that generate much of the state's water supply (California Natural Resources Agency 2009c). It features eight national forests, three national parks, numerous state parks, historical sites, wilderness, special recreation and national scenic areas, and mountain peaks.

The climate varies with the elevation, offering cold snowy winters and cool summers at higher elevations and rainy winters and mild summers in the foothills (California Natural Resources Agency 2009c). Summers are dry. Mild dry mountain summers accommodate outdoor sports and activities, but when high pressure areas push temperatures upward and gusty winds blow, the Sierra bioregion is vulnerable to wildfires that consume thousands of acres of brush and timber every year.

The Sierra bioregion is rich in biodiversity, containing over half the plant species found in California and more than 400 of the state's terrestrial wildlife species (California Natural Resources Agency

2009c). The variety of habitat types include annual grassland, blue oak savannah, chaparral, ponderosa pine, black oak woodland, mixed conifer, red fir, riparian, alpine meadow, Jeffrey pine, sagebrush, and bitter brush. Animals that inhabit the Sierra bioregion include lodgepole chipmunk, mountain beaver, California mountain king snake, black bear, wolverine, California bighorn sheep, Pacific fisher, mule deer, and mountain lion. The California golden trout (the state fish) is native to the southern Sierra. Birds include the northern goshawk, mountain chickadee, pine grosbeak, California spotted owl, mountain quail, willow flycatcher, bald eagle, and great gray owl.

The Sierra bioregion is one of California's most popular year-round vacation attractions (California Natural Resources Agency 2009c). High tech has emerged as a significant growing industry in the Sierra, joining such established industries as hydropower, tourism, and recreation. Other industries include logging and cattle ranching.

3.8.3 VISUAL RESOURCE INVENTORY CLASSES

In support of RMP preparation, the BLM prepared a visual resource inventory, which covers the Decision Area (Appendix C, Table 3.8-2 and Map 3.12).

Table 3.8-2
Visual Resource Inventory Classes in the Decision Area

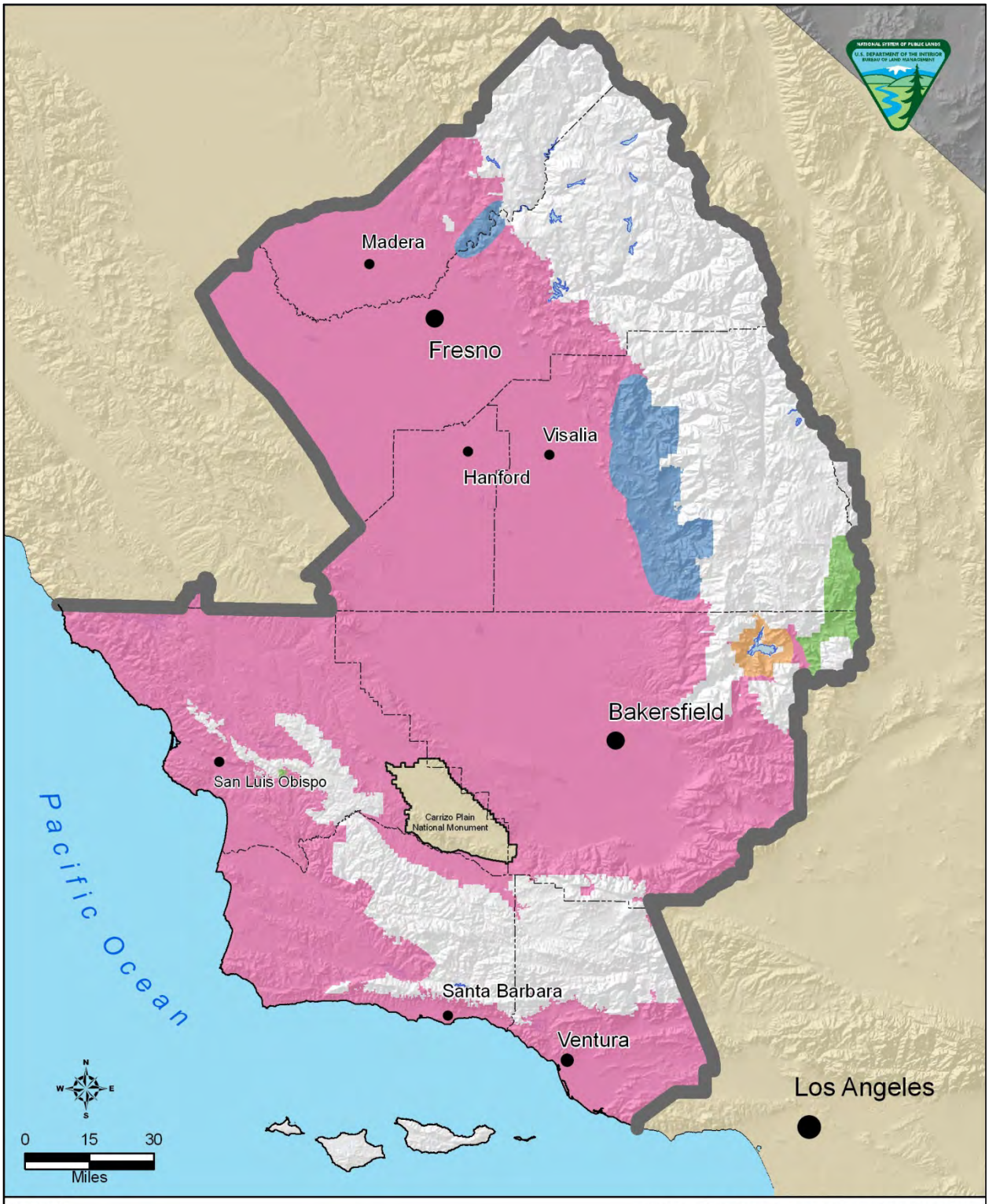
VRI Class	Surface Acres	Subsurface Acres	Percent of Decision Area
I	131,474	16,740	13%
II	42,165	49,903	8%
III	33,893	21,146	5%
IV	196,653	653,561	73%
N/A*	0	21,474	2%

Source: BLM 2009
* No VRI Class is given to Federal Mineral Estate Under USFS or National Park – In these cases visual resources are managed by the applicable entity.

3.8.4 CHARACTERIZATION

The Decision Area is highly fragmented, with a landscape experiencing a high degree of human modification due to urban development its associated infrastructure and uses, and energy development. In addition, tourism plays a major role in the economy of the area, and much of the Planning Area is viewed en route to or from major tourist destination areas, such as national parks. As the state's population grows, more visitors will be attracted to public lands for recreation in natural landscapes.

With increases in both resident populations and in tourism, scenic values and visual open space have become more important. Management direction aimed at preserving sensitive viewsheds will continue to compete with other land use allocation decisions and management activities for urban development infrastructure needs, energy development, recreation uses, and other surface-use activities.



Legend

- Bakersfield Field Office
- County Boundary

Visual Resource Inventory

- Class I
- Class II
- Class III
- Class IV

Visual Resource Inventory Classes
Bureau of Land Management
Bakersfield Field Office

Map 3.12

3.9 WATER RESOURCES

Water resources include both surface water (rivers, lakes, and springs) and ground water (aquifers), the management of which addresses both availability and quality. This resource cannot be managed in isolation and requires the BLM to cooperate on a landscape (watershed) level with others, including other land managers, state and regional water quality control and resources boards.

Numerous factors can affect water quality within the Planning Area, including land management practices, road construction and maintenance, water consumption, pollution, and waste disposal practices. Nonpoint source pollution is the leading cause of water quality impairment in California (Dec. 2002 ref w/ MM appendix). BLM programs and activities that are subject to state review include oil and gas leasing, mineral exploration and development, livestock grazing management, recreation and travel management, riparian and wetland management, and chemical (herbicide, pesticide) use. The following federal water quality laws and regulations are pertinent in the Planning Area:

- The Clean Water Act and amendments (CWA)
- The Safe Drinking Water Act and amendments (SDWA)
- The Resource Conservation and Recovery Act (RCRA)
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund)

The U.S. Environmental Protection Agency (EPA) has granted primacy to the State of California to implement portions of the CWA and the SWDA. California state laws and regulations that are pertinent to water quality in the Planning Area include:

- The Porter-Cologne Water Quality Control Act
- The California Water Code
- The California Fish and Game Code
- The California Health and Safety Code

The Porter-Cologne Water Quality Control Act governs water quality in California; this law assigns responsibility for water rights and water quality protection to the State Water Resources Control Board (SWRCB), which directs nine Regional Water Quality Control Boards (RWQCBs) to develop and enforce water quality standards within each region. Regulatory agencies that have jurisdiction and oversight of BLM activities within the Planning Area include the U.S. EPA, the SWRCB, and four California RWQCBs including the Central Coast Region (3), Los Angeles Region (4),Central Valley Region (5), and portions of the South Lahontan Region (6). The Water Boards control and protect water resources by designating uses and by establishing water quality objectives. Water resource protection is achieved through the issuance of water rights, permits, and other authorizations by the Water Boards allowing for the extraction, diversion, consumption, and discharge, to and from both surface and ground water. Pollution control is managed statewide and

regionally through a series of SWRCB and RWQCB plans and policies; nonpoint source pollution (NPS) plans are managed through the implementation of BMPs (Management Measures, see Appendix L) to reduce, prevent, or eliminate pollutant entry into waters, whereas Water Quality Standards (WQS) are used to restrict point sources. BLM is required to comply with the above laws and regulations, including compliance with State water rights reporting requirements for licenses and statements of diversion, in order to ensure that water is available for designated beneficial uses on public lands.

Designated or beneficial uses in the Planning Area include wildlife habitat, agriculture, water contact recreation, and noncontact recreation. Currently, BLM manages water quality (surface and groundwater) to meet State objectives through the implementation of BMPs (Appendix L) that minimize surface disturbance to riparian and wetland areas, control nonpoint pollutant runoff from BLM projects and authorizations (e.g. sediment), and limit or restrict development around water sources. In addition, BLM manages livestock grazing to meet the Standards of Rangeland Health for water quality and riparian areas.

Water of adequate quality to meet the demand for many beneficial uses in the Planning Area is in short supply. Water rationing for domestic purposes is sometimes implemented during water shortages. The use of both surface and groundwater by the local population centers and for local activities is increasing. The competition for water of adequate quality is projected to become more intense in the future.

3.9.1 SURFACE WATER

The Planning Area is divided into the following Hydrologic Regions: Central Coast, South Coast, San Joaquin River, and Tulare Lake, and portions of South Lahontan. These regions are defined by having a common occurrence, distribution, movement, drainage, and properties of water. The major drainages within the Planning Area include the Cuyama, Santa Clara, Kern, Kaweah, Kings, Tule, Fresno, Salinas, and San Joaquin Rivers. Also, there are a number of named and unnamed intermittent or ephemeral streams that are generally expressed as dry drainages, but may seasonally support surface waters.

The Decision Area contains no extensive occurrences of surface water; however, segments of several rivers cross public lands, in addition to numerous springs, and several ponds. The most notable examples of perennial surface waters that cross public lands include: Chimney Creek (14 miles); the San Joaquin River (8 miles); the Cuyama River (8 miles); Spanish Needle Creek (5 miles); Salt Creek (4 miles); the lower Kern River (4 miles); the North Fork of the Kaweah River (3 miles); East Fork of the Kaweah River (2 miles); Erskine Creek (2 miles); Pine Creek (2 miles); Bodfish Creek (1 mile); and Caliente Creek (1 mile) (Map 3.13). There are approximately 84 springs known to occur on public lands in the Decision Area including Deer Spring and Frog Pond. In addition, there are approximately 27 acres of reconstructed wetlands at Atwell Island.

Although not notable for its extent on public lands, the 0.8 miles of the Salinas River is significant as the only river segment identified as impaired under the CWA 303(d) List by the State of California (State Water Resources Control Board 2006). California is required to identify impaired surface water bodies under Section 303(d) of the Clean Water Act. This stretch of the Salinas River is identified as being impaired for chloride and sodium from the Santa Margarita Reservoir, downstream to the confluence with the Nacimiento River (US Environmental Protection Agency 2009b).

3.9.2 GROUNDWATER

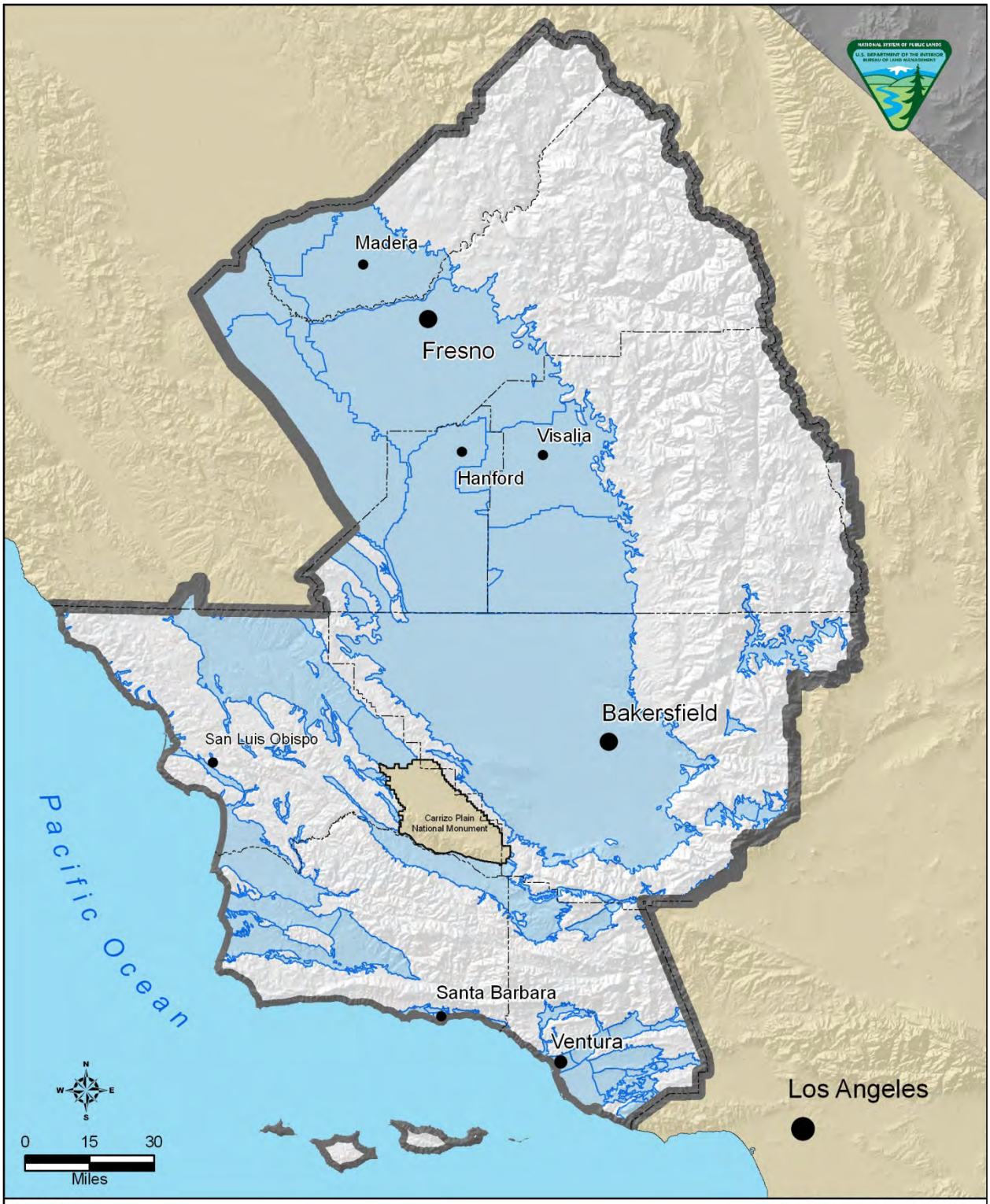
In California, groundwater has been delineated into 515 distinct systems (431 basins, 24 of these subdivided into 108 additional subbasins); these underlie approximately 40 percent of the surface in the State. Approximately 70% of the Planning Area is underlain by distinct groundwater systems; Groundwater within the Planning Area occurs in the following hydrologic regions: Central Coast, South Coast, Tulare Lake, San Joaquin River, and portions of the South Lahontan. Based on groundwater basin maps, surfaces in the Planning Area that are not within groundwater basin boundaries are mainly located in the eastern portion of the San Joaquin Valley, in the Sierra Nevada Range, and the San Emigdio Range (Map 3.14).

Groundwater levels (i.e., the depth of the water table) fluctuate as a result of natural environmental conditions and rates of extraction. As a result of extensive urban development and expansion of agricultural uses over the last century generally groundwater levels within the Planning Area have dropped. Therefore, diminishing the abundance and reducing the availability.

Groundwater quality is another major concern. Water quality has been deteriorating because of constant recycling and evaporation of irrigation water in the basin. The effects of high salt and trace element concentrations naturally occurring in the soils have been exacerbated by agricultural irrigation practices, which have dissolved these substances and accelerated their movement into shallow groundwater (Gilliom et al. 1989).

EPA has delegated primacy and permit authority to the State of California for groundwater protection; programs in place statewide include the National Pollution Discharge Elimination System (NPDES) and the Underground Injection Control (UIC) program. Although BLM does not hold any NPDES permits in the Planning Area (or the State); however, such permits may be held by federal oil and gas operators on existing federal oil and gas leases. BLM recognizes the importance of groundwater (aquifer) protection during fluid mineral exploration, development, and production and requires that federal oil and gas operators comply with federal and State program and permit requirements to protect groundwater. Although BLM does not have regulatory jurisdiction over groundwater, the agency follows existing implementation guidelines and includes Conditions of Approval (COA) for groundwater resource protection in its authorizations for permit to drill (APDs).

San Joaquin River Basin
Tulare Lake Basin
Central Coast Basin
South Coast Basin
South Lahontan Basin
South Lahontan Basin
South Lahontan Basin
Madera
Fresno
Hanford
Visalia
Bakersfield
San Luis Obispo
Santa Barbara
Ventura
Los Angeles
Pacific Ocean
Chowchilla River
Fresno River
San Joaquin River
California Aqueduct
Kings River
North Fork Kaweah
East Fork Kaweah
Kaweah River
Tule River
Historic Tulare Lake
White River
Kern River
South Fork Kern River
Salinas River
Huasna River
Cuyama River
Carrizo Plain National Monument
Historic Buena Vista Lake
Historic Kern lake
Sisquoc River
Santa Ynez River
Santa Clara River
0 15 30
Miles
Legend
Bakersfield Field Office
County Boundary
Hydrologic Basins
Historic Lakes
Land Status
Bureau of Land Management
US Forest Service
National Park Service
Bureau of Reclamation
US Fish and Wildlife Service
Military
Indian Lands
City, County, Regional, Other Federal
State
Private, Unclassified
Hydrology
Bureau of Land Management
Bakersfield Field Office
Map 3.13



Legend

- Bakersfield Field Office
- County Boundary
- Groundwater Basins

Ground Water Basins
Bureau of Land Management
Bakersfield Field Office

Map 3.14

3.10 WILDLAND FIRE ECOLOGY AND MANAGEMENT

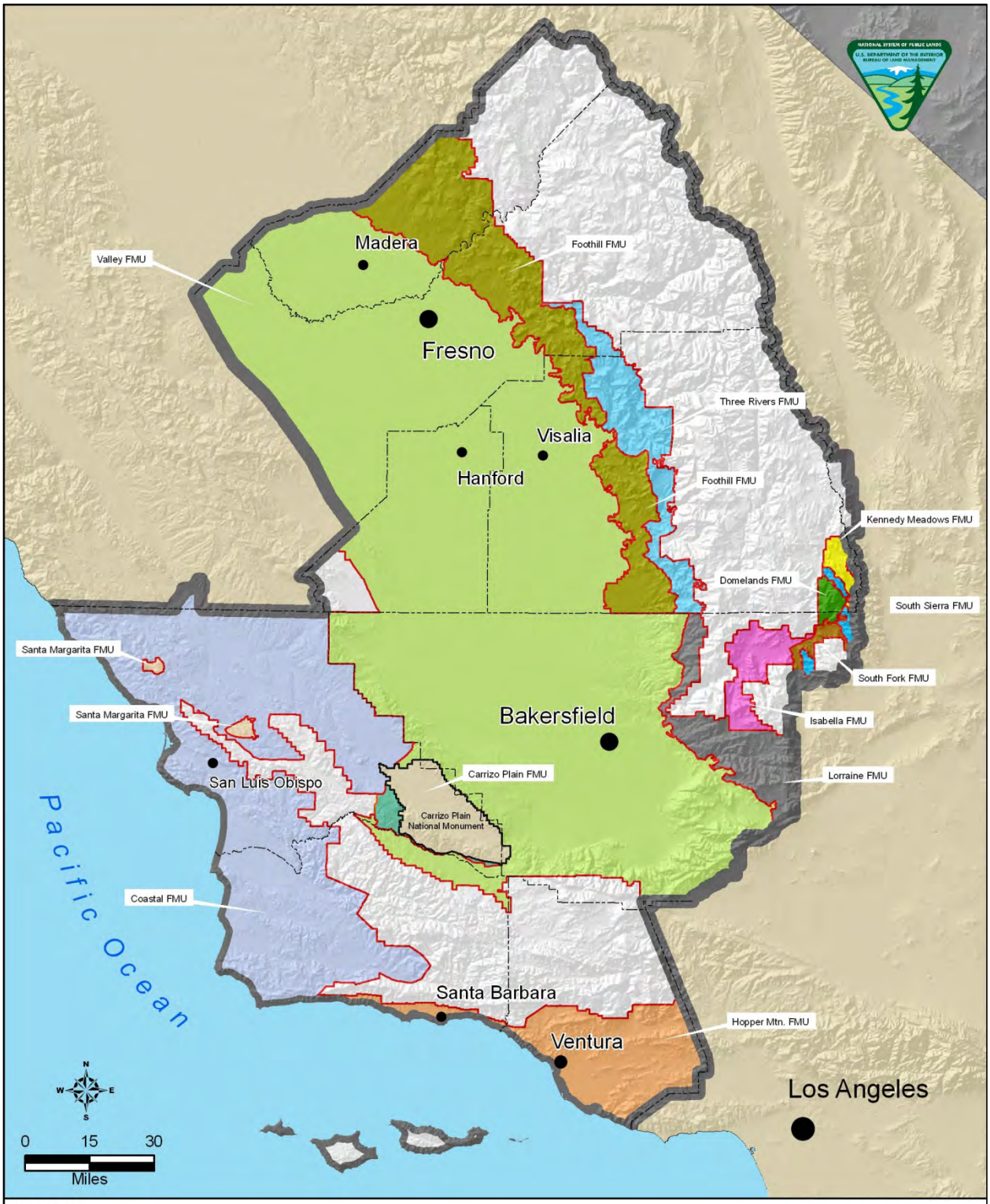
Wildland fire management is one of the BLM's most important responsibilities. Whether using fire as a tool to achieve desired resource conditions, or managing vegetation to reduce the risk of fire to local communities, wildland fire management blends the sciences of fire behavior with the art of fire suppression to achieve desired objectives. Wildland fire ecology and management addresses the role of fire in the ecosystem, the use of naturally ignited fire for resource benefit, the use of intentionally set (or prescribed) fire as a management tool, and the suppression of unwanted fires.

3.10.1 FIRE MANAGEMENT PLANNING

A single interagency policy for managing wildland fire on public lands was implemented in 1995 with the adoption of the Federal Wildland Fire Management Policy (FWFMP), as updated (USDI et al. 2001). The Secretaries of the USDI and USDA developed the FWFMP to respond to dramatic increases in the frequency, size, and catastrophic nature of wildland fires in the US. The FWFMP requires all federal agencies to develop fire management plans for all burnable acres within their jurisdictions.

Further guidance on consistent implementation of the fire policy was provided in February of 2009 with the release of the Guidance for Implementation of Federal Wildland Fire Management Policy (USDI et al. 2009). Under this new guidance there are two types of wildland fires: wildfires (unplanned ignitions) or prescribed fires (planned ignitions). A wildland fire can be concurrently managed for one or more objectives, and objectives can change as the fire spreads across the landscape.

The Bakersfield FO Fire Management Plan, (BLM 2004) identifies resource values and conditions pertaining to fire management in the Decision Area and recommends strategies for wildland fire suppression, prescribed fire, and non-fire fuels treatment. Classification of lands in the fire management plan (FMP) is by fire management unit (FMU), which is any land management area definable by objectives, management constraints, topographic features, access, values to be protected, political boundaries, and other discernable features that set it apart from the management characteristics of an adjacent FMU. In this plan, portions of the Planning Area (excluding National Parks and Forests) were divided into thirteen FMUs (Map 3.15).



Legend

Bakersfield Field Office

County Boundary

Fire Management Unit

Carrizo Plain	Isabella	South Sierra
Coastal	Kennedy Meadows	Three Rivers
Domelands	Lorraine	Valley
Foothill	Santa Margarita	
Hopper Mtn.	South Fork	

Fire Management Units
Bakersfield Field Office

Map 3.15

3.10.2 FIRE HISTORY

In terms of fire history in the overall Planning Area, the largest acreages burned have occurred on National Forest System lands (Map 3.16). Therefore the principally affected public lands are those adjacent to National Forests. Over the last decade (1997-2008) approximately 1.2 million acres have burned within the Planning Area. The majority of these acres burned throughout the Coast Range, largely attributed to large fires burning on National Forest Land. The majority of fire affecting public lands has occurred in the southern Sierra Nevada with approximately 30,000 acres of public land burned principally attributed to one fire (Manter Fire in 2000). The large scale and frequency of fires in these regions demonstrates the active fire regimes and shows the continued potential for large fires in these areas on a relatively short return interval.

Over the last decade the southern San Joaquin Valley has had the fewest fires with approximately 64,000 acres burned; this, however, affected only approximately 2,000 acres of public land.

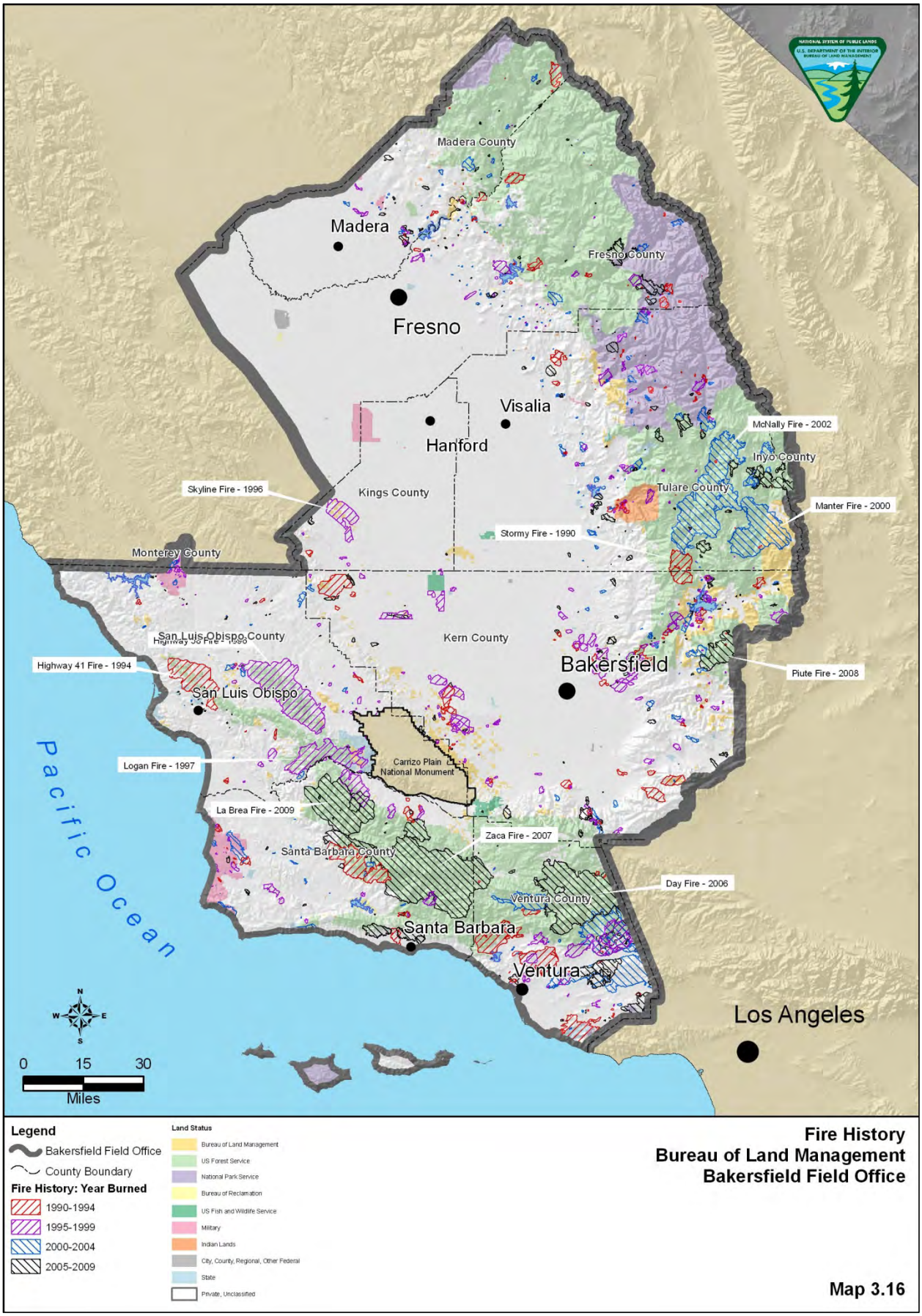
From 2000 to 2009, of the fires where a cause was recorded, a majority of fires were human-caused (72%), while lightning accounted for 28%. This includes all wildland fire ignitions and not just those that resulted in wildland fires greater than 10 acres.

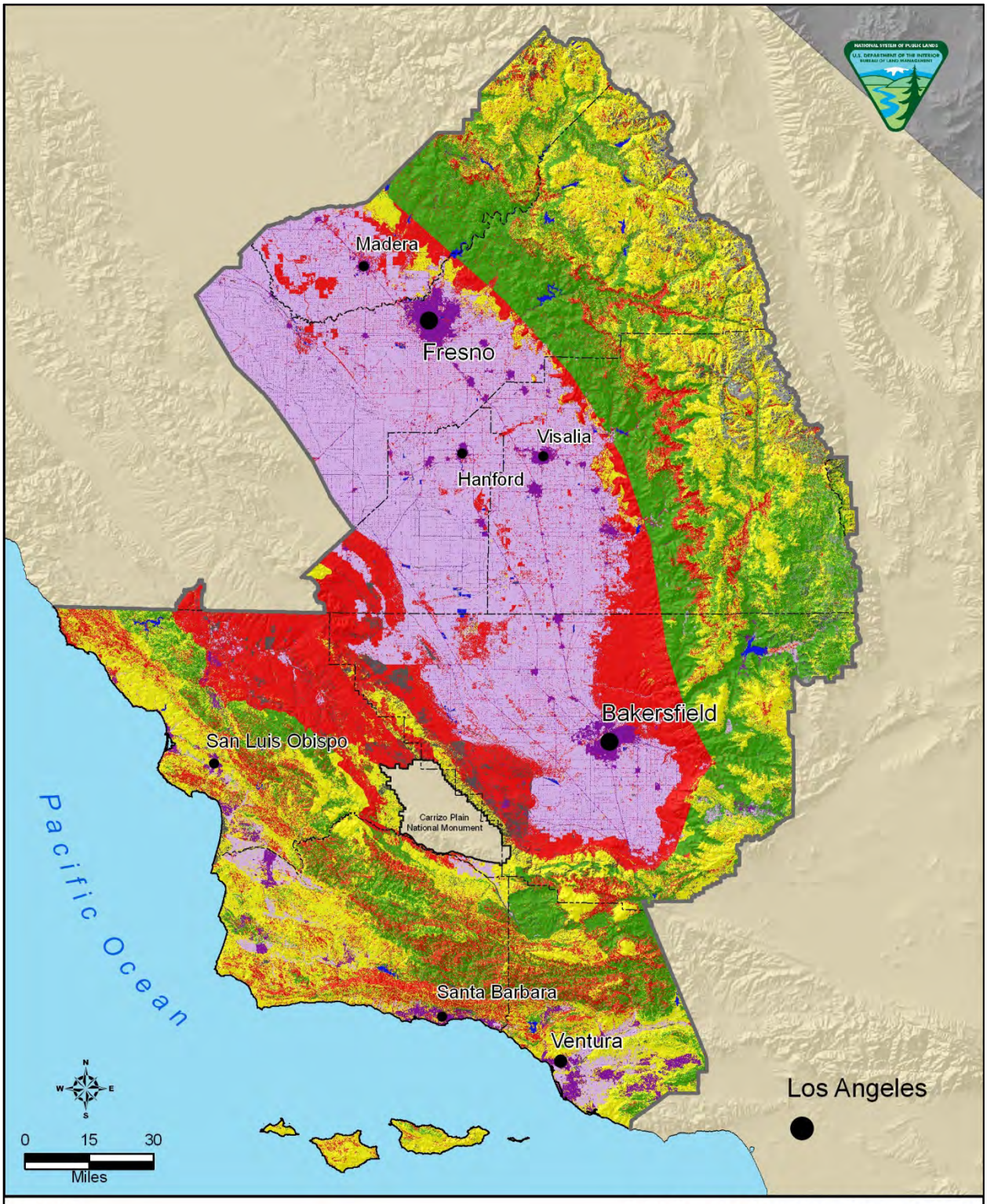
3.10.3 FIRE ECOLOGY

Fire is a natural part of the ecosystem and important in maintaining vegetative communities and wildlife habitats. It is the return interval and severity of the fire (termed a natural fire regime) that influences these communities and habitats; deviation from the natural fire regime can result in vegetative structure that can contribute to unnatural fire severity or cause changes in the vegetative composition. These natural fire regimes are categorized and lands classified based on the role fire would play across a landscape in absence of modern human intervention but including the influence of aboriginal burning (fires intentionally started by native people). Within the Decision Area 25 percent of public lands are not classified due to its sparsely vegetated or barren nature. Another 25 percent is classified as Fire Regime Group I (0- to 35-year fire return interval, low and mixed severity). Twenty percent is classified as Fire Regime Group IV (35- to 200-year fire return interval, replacement severity) with the remainder spread between the other three groups.

A fire regime condition class is a classification of the amount of departure from the natural fire regime. The classification is based on a relative measure described in terms of vegetation characteristics (such as species composition and structural stages), fuel composition, fire frequency, severity and pattern, and other associated disturbance (such as insects, disease, drought, or grazing). Three condition classes are assigned, with a Condition Class 1 indicating a low degree of departure, and Condition Classes 2 and 3 representing moderate and high departure from the natural fire regime.

Within the southern Sierra Nevada, 60 percent of the public lands are in a Condition Class 1. Conversely the public lands within southern San Joaquin Valley show the greatest departure from the natural fire regime with 42 percent of the area in Condition Class 3 (Map 3.17). Refer to Appendix D for a summary of Condition Class by Fire Management Unit.


Madera County
Madera
Fresno County
Fresno
Visalia
Hanford
Kings County
Tulare County
Inyo County
McNally Fire - 2002
Manter Fire - 2000
Skyline Fire - 1996
Stormy Fire - 1990
Monterey County
San Luis Obispo County
Kern County
Bakersfield
Highway 41 Fire - 1994
Piute Fire - 2008
San Luis Obispo
Logan Fire - 1997
Carrizo Plain National Monument
La Brea Fire - 2009
Zaca Fire - 2007
Santa Barbara County
Day Fire - 2006
Ventura County
Santa Barbara
Ventura
Pacific Ocean
Los Angeles
N
W
E
S
0 15 30
Miles
Legend
Bakersfield Field Office
County Boundary
Fire History: Year Burned
1990-1994
1995-1999
2000-2004
2005-2009
Land Status
Bureau of Land Management
US Forest Service
National Park Service
Bureau of Reclamation
US Fish and Wildlife Service
Military
Indian Lands
City, County, Regional, Other Federal
State
Private, Unclassified
Fire History
Bureau of Land Management
Bakersfield Field Office
Map 3.16



Legend

Bakersfield Field Office

County Boundary

Fire Regime Condition Class

FRCC 1
FRCC 2
FRCC 3
Water
Urban
Agriculture
Barren
Sparsely Vegetated
Snow / Ice

Fire Regime Condition Class (FRCC)
Bureau of Land Management
Bakersfield Field Office

Map 3.17

3.10.4 FUELS MANAGEMENT

The Bakersfield FO has an active fuels management program, supporting both prescribed fire and non-fire fuel treatments. Fuels treatment emphasis has been in the Wildland Urban Interface (WUI). Fuels treatments are used in part to return areas to lower, more natural, fire regime Condition Classes 1 or 2 and to create defensible space around facilities, developments, and communities.

Prescribed fire treatments are planned to break up continuous fuel beds and concentrations of dead or decadent fuels. Prescribed fire is also used within the Atwell Island Land Restoration Project as a site preparation method to remove vegetation before seeding with native vegetation. A limited amount of prescribed burning has been conducted within the Case Mountain giant sequoia grove to reduce fuels and to return fire to its natural role in this fire-adapted ecosystem.

Non-fire fuel treatments are conducted in several areas, especially next to the WUI and within high visitor use areas, such as recreation areas and administrative sites. Treatments include mowing, cutting, and chipping vegetation, cutting and piling vegetation for future burning, and mechanically breaking down vegetation on-site.

3.10.5 WILDLAND FIRE SUPPRESSION

In California, the five federal fire management agencies and CAL FIRE have entered into an agreement known as the California Master Cooperative Wildland Fire Management and Stafford Act Response Agreement (known as the CFMA). This agreement provides the framework for the mutual cooperation of the fire management agencies to suppress fires on intermingled private and public land within the state. Through this agreement and with oversight from the California Wildfire Coordinating Group (CWCG), the state has been divided into direct protection areas (DPAs), delineated by boundaries regardless of statutory responsibility, where fire protection is assumed by administrative units of either federal or state agencies. Therefore, in some areas the BLM is responsible for protecting lands other than public land, and in other areas another federal or state agency is responsible for suppression on public lands. Regardless of the actual responsibility for a specific area, the closest available fire suppression resources will respond to a given fire under the mutual aid agreements also included in the CFMA.

Where another agency provides suppression protection for the BLM, the agency responsible strives to protect the land in the way the jurisdictional agency would protect it. The agencies have local operating plans and meet annually to discuss fire suppression tactics and special suppression considerations for all lands. For special areas, such as ACECs, the BLM often prepares a Modified Suppression Plan that outlines areas of special concern and the suppression tactics to use in these areas.

3.10.6 RESPONSE TO WILDLAND FIRE

The Bakersfield FO and cooperators provide a response to all wildland fires that occur on public lands, with primary emphasis on firefighter and public safety. Due to high percentage of WUI in the field office, in most cases the management response is full suppression, using existing control

features, such as roads or natural fuel breaks, whenever possible, while protecting sensitive resources. The circumstances under which a fire occur, the consequences on firefighter and public safety, and natural and cultural resources to be protected dictate the management response for each fire.

3.10.7 EMERGENCY STABILIZATION AND REHABILITATION

Emergency stabilizations are planned actions taken to stabilize and prevent degradation of natural and cultural resources and to minimize threats to life and property resulting from the effects of a fire. Actions must be taken within one year following containment of the fire.

Fire rehabilitation actions are undertaken within three years of fire containment to repair or improve fire-damaged land unlikely to recover naturally to management approved conditions or to repair or replace minor facilities damaged by fire.

All fires will be assessed for emergency stabilization and rehabilitation (ESR) needs, and appropriate plans will be prepared and submitted for funding where applicable. ESR treatments will be implemented in a timely manner and monitored for success. While the need for ESR treatments will be assessed on a case-by-case basis, standard ESR practices may include monitoring for noxious weeds, removing hazard trees, and closing grazing allotments for a minimum of two years.

3.10.8 FIRE MITIGATION, EDUCATION, AND PREVENTION

The Bakersfield FO participates in a number of activities to educate, prevent, and mitigate fire risk including participation on fire safe councils, distribution of printed materials, California campfire permit program, and other public awareness programs and events.

RESOURCES USES

3.11 COMPREHENSIVE TRAIL AND TRAVEL MANAGEMENT

Two of the BLM's greatest management challenges are providing reasonable and varied routes for access to public lands and providing areas for a variety of motorized and non-motorized recreation. The various landscapes, user interests, equipment options, weather conditions, transportation infrastructure, and resource constraints all must be considered. Travel and transportation are an integral part of virtually every activity that occurs on public lands, including recreation, livestock and wildlife management, commodity resources management, ROWs to private inholdings, and public land management and monitoring. Comprehensive Travel and Transportation Management (CTTM) is the planning, management, and administration of motorized and non-motorized roads, primitive roads, and trails to ensure that public access, natural resources, and regulatory needs are considered.

Comprehensive travel management planning should address all resource use aspects, such as recreational, traditional, casual, agricultural, commercial, and educational, and accompanying modes

and conditions of travel on public lands, not just motorized or off-highway vehicle (OHV) activities. Traditionally, the BLM's travel management program focused primarily on motor vehicle use. Within the framework of CTTM, this program is significantly expanded to encompass all forms of travel, including travel by foot, horseback and other livestock, mechanized vehicles (such as bicycles), motorized vehicles (such as two-wheeled motorcycles and four-wheeled OHVs, cars, and trucks), and motorized and non-motorized boats.

There is considerable overlap of travel management and all BLM uses on public lands. For example, many users of public lands are there for recreation. For visitors, a route system may serve as either a route to a destination or as the recreation location itself. For destination recreation, vehicle routes are the means to get to a starting point to engage in the activity, such as a parking area or trailhead. The route itself also can serve as the focus of the activity, (e.g., pleasure driving, four-wheel vehicle driving, motorcycling, all-terrain vehicle (ATV; see definition below) riding, biking, horseback riding, hiking, snowmobiling, and cross-country skiing) (US Forest Service 2008). To reduce the duplication of narrative between travel management and the other sections of this RMP, this section addresses only public travel and access concerns; discussion of how other resource programs use the BLM's transportation system are found in those programs' respective sections. The transportation component of CTTM that concerns administrative access, agricultural use, commercial use, commodity use, and road maintenance is addressed under Section 3.3.5, Transportation Facilities.

In 2006, the BLM issued Instruction Memorandum No. 2006-173, which established policy for the use of terms and definitions associated with the management of transportation-related linear features. It also set a data standard and a method for storing electronic transportation asset data. According to the memorandum, all transportation assets are defined as follows:

> **Road:** A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.
>
> **Primitive roads:** A linear route managed for use by four-wheel drive or high-clearance vehicles. Primitive roads do not normally meet any BLM road design standards.
>
> **Trails:** A linear route managed for human-powered, stock, or off-highway vehicle forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

3.11.1 MODES OF TRAVEL

Mode of travel refers to the mechanisms used to move across the land. It is broadly defined in three categories, those use motors, those using some mechanical method and those reliant only the movements of the human (or animal) bodies. Examples are provided below.

> **Non-mechanized Travel**—Non-mechanized modes of travel include cross-country skiing, snowshoeing, horseback riding, pack animal driving, hiking, boating, hang-gliding, paragliding, and ballooning.

Mechanized Travel—Mechanized vehicles include, primarily, mountain bikes and specialized equipment such as mountain skateboards.

Motorized Travel—Motorized travel includes standard passenger vehicles on maintained roads and OHVs on primitive roads and trails. OHVs include off-road motorcycles, ATVs, jeeps, specialized 4x4 trucks, and snowmobiles.

3.11.2 OFF-HIGHWAY VEHICLE MANAGEMENT AREAS

OHVs are synonymous with off-road vehicles. As defined in 43 CFR, 8340.0-5 (a): Off-road vehicle means any motorized/battery-powered vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: 1) Any non-amphibious registered motorboat; 2) Any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; 3) Any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; 4) Vehicles in official use; and 5) Any combat or combat support vehicle when used in times of national defense emergencies. OHVs generally include dirt motorcycles, dune buggies, sand rails, jeeps, 4-wheel drive vehicles, snowmobiles, and ATVs.

A four-wheel drive vehicle (also called 4x4 or 4WD) is a passenger vehicle or light truck having power available to all wheels. An ATV is a wheeled vehicle other than a snowmobile, which is defined as having a wheelbase and chassis of fifty inches in width or less, steered with handlebars, generally having a dry weight of 800 pounds or less, three or more low-pressure tires, and a seat designed to be straddled by the operator. A motorcycle is defined as a motorized vehicle with two tires and with a seat designed to be straddled by the operator. Many of these routes are designed more for the off-highway type of motorcycles.

In accordance with 43 CFR 8342.1, the BLM's regulations for OHV management, "the authorized officer shall designate all public lands as open, limited, or closed to [OHVs]." As such, all public lands within the Planning Area have been designated in one of three OHV designation categories, as follows:

Open Area Designations are used for intensive OHV or other transportation use areas where there are no special restrictions or where there are no compelling resource protection needs, user conflicts, or public safety issues to warrant limiting cross-country travel.

Limited Area Designations are used where travel must be restricted to meet specific resource/resource use objectives. For areas classified as limited, the BLM must consider a range of possibilities, including travel that will be limited to the following:

- Types or modes of travel, such as foot, equestrian, bicycle, and motorized;
- Existing roads and trails;
- Time or season of use; limited to certain types of vehicles (OHVs, motorcycles, all-terrain vehicles, high clearance, etc.); limited to licensed or permitted vehicles or users;
- BLM administrative use only; or

- Other types of limitations.

The BLM must also provide specific guidance for those categories of motorized vehicle uses that are exempt from a limited area designation, such as authorized, permitted, or otherwise approved vehicles (43 CFR 8340.0-5 [a] [1] through [5]).

Closed Area Designations prohibit vehicular travel, both motorized and mechanized, transportation cross-country and on routes, except for where valid rights continue to allow access, such as within a designated wilderness area. Areas are designated closed if closure to all vehicular use is necessary to protect resources, promote visitor safety, or reduce use conflicts.

3.11.3 OVERVIEW OF TRAVEL SYSTEM

All public lands within the RMP decision area are currently designated as either Closed to OHVs closed (139,448 acres) or OHV Limited (264,562 acres) areas; there are no OHV Open area designations in the RMP decision area.

3.11.3.1 Closed Area Designations

The areas that are specifically closed to all vehicles are Pt. Sal ACEC, Blue Ridge ACEC, designated Wilderness and WSAs, as stated in Table 3.11-1.

Table 3.11-1
OHV Travel Closures in the Decision Area

Location	Area Closed
Blue Ridge ACEC	3,195 acres
Pt. Sal ACEC	77 acres
Designated Wilderness	120,799 acres
WSAs	21,000 acres

Source: BLM 1983, 1997a

The Pt. Sal and Blue Ridge ACECs are closed to minimize damage to sensitive cultural and natural resources. Designated wilderness areas are administratively and statutorily closed to motorized travel (BLM 1983, 1988). WSAs are being managed to preserve their wilderness values according to the BLM Interim Management Policy for Lands Under Wilderness Review BLM Handbook H-8550-1 (BLM 1995). These WSAs will continue to be managed in that manner until Congress either designates them as wilderness or releases them for other uses. To that end, the Bakersfield FO manages WSAs as de facto closed areas.

3.11.3.2 Limited Area Designations

Most of the RMP decision area, 64 percent, is designated as an OHV Limited area, where management restricts use to designated routes. Generally a variety of categories of designation would exist, further limiting use to specific modes of transport, periods of use, and types of user, such as authorized users. However, the manner in which routes were previously designated—that is,

designating everything that appeared on USGS maps and aerial photographs as available for use—essentially made every route available to everyone. The exception to this was the identification of the PCNST to non-mechanized uses. Another issue created by the previous RMP's approach to route designation was that many routes on the ground did not appear on maps, and aerial photography was not of high enough resolution to distinguish these routes. As such, many widely used routes were not designated, essentially making it unlawful to use them.

Table 3.11-2 illustrates the extent of the designated route network. Undesignated routes represent both those that were missed, due to the nature of the previous designation attempt, and routes that have been created, either with or without authorization, that have failed to be tracked since the Caliente RMP was completed in 1997.

Table 3.11-2
Current Route Designations

Use	Miles
Available (Motorized)	937
Pedestrian and Livestock (Non-motorized)	41
Undesignated	985

Source: BLM 2010a

Beyond the issues created by the previous designation, the Limited OHV area designation harbors several other emerging issues, as follows:

- An inadequate framework is provided to address the rapid expansion of recreational vehicle use and visitation on public lands;
- The lack of planning for recreation travel in popular areas, such as Keyesville and Taft;
- The lack of legal access to public lands, ROWs, and easements, where public land is isolated within privately owned areas;
- Unauthorized creation and proliferation of routes causing impacts on other resources; and
- Growing conflicts among travel network users.

3.11.3.3 Motorized Travel

The increase in the use of motorized vehicles has created several issues on public lands in the Planning Area. First, the increasing capability of motorized vehicles allows easier access to remote parts of the Planning Area, thereby increasing the likelihood of impacts on otherwise protected resources. Second, as the popularity of recreational OHV use continues to grow, there could be conflicts with other public land users. Last, the expansion of unauthorized cross-country OHV use is creating additional resource damage in the RMP decision area.

The management of motorized activities within the RMP decision area includes monitoring and maintaining trails, maintaining a database of monitoring use, ongoing training of OHV-related issues, issuing citations and warnings for violations, and coordinating with user groups, local officials, and other agencies. The BLM is working with the Forest Service and local user groups,

such as the Southern Sierra Fat Tire Association, City of Taft Motorcycle Club, and California Off-Road Vehicle Association, to keep usable trails open and to designate other areas where there are safety concerns or the potential for resource damage.

3.11.3.4 Mechanized Travel

Mechanized travel, such as mountain biking, is becoming increasingly popular on public lands, and several areas in the Bakersfield FO are considered premium destinations. Throughout the RMP decision area, mechanized use is limited to designated routes, unless otherwise specified. Mechanized use is primarily occurring on old motorized routes, game trails, and user-created trails, as well as on planned single-track routes. Popular mountain biking areas in the Planning Area include parcels in the Coastal Management Area, the San Joaquin River Gorge, and the Keyesville area, which hosts the annual Keyesville Classic Mountain Bike Race.

3.11.3.5 Non-mechanized Travel

Hiking and horseback riding have been increasing on all of the public lands within the RMP decision area. The high rate of population growth and sprawl of communities in Southern California, including Los Angeles, Ventura, and Santa Barbara, have subsequently added overflow pressure to the public lands in the vicinity.

Horseback riding is common but dispersed throughout the decision area on trails and roads. No routes have been specifically constructed for equestrian use, but equestrian use occurs on routes that were constructed for other modes of travel.

The dunes at the Tierra Redonda ACEC and areas off designated routes in the Alkali Sinks, Goose Lake, and Piute Cypress ACECs are open only to foot travel. Sensitive areas, such as the riparian zone of Frog Pond Mountain SMA and the sequoia groves of Case Mountain ACEC, are also limited to foot travel.

Only a few developed and maintained hiking trails exist in the Bakersfield FO, as follows:

- PCNST-Owens Peak segment;
- Lamont Peak Trail;
- Chimney Creek Trail;
- Long Valley River Access Trail;
- Rockhouse Trail;
- San Joaquin River Trail;
- Pa'san Ridge Trail;
- Wuh-ki'oh Trail.

The National Scenic Trail Act established the PCNST in 1968: a hiking and equestrian trail extending approximately 2,600 miles from Mexico to Canada. The Bakersfield FO manages 41 miles of the trail, known as the Owens Peak segment, in addition to several short spur trails. The Recreation Management Activity Plan for the PCNST has been developed, but management issues remain, such as maintaining the trailhead, providing adequate signage, and protecting the VRM designations, which is primarily VRM Class I. The PCNST, in addition to other trails, such as

Chimney Creek, Lamont Peak, Long Valley, Rockhouse Basin, and Walker Pass, are managed in cooperation with the Ridgecrest Resource Area (refer to Section 3.4.3, National Trails).

Other hiking trail opportunities exist near the San Joaquin River Gorge. Hikers, mountain bikers, and horseback riders frequent the trails in the area, which include the Pa'san Ridge Trail (a six-mile loop trail), the four-mile Wuh-ki'oh Trail that connects with Millerton Lake State Recreation Area, and the San Joaquin River Trail, which runs 14 miles to Sky Harbor. When completed, the San Joaquin River Trail will connect Highway 99 to the PCNST near Devils Postpile National Monument.

3.11.3.6 Popular Areas for OHV Travel and Recreation

The following areas are examined in greater detail due to their higher use and the number of prevalent issues.

Keyesville

Both motorized and non-motorized use has increased in the Keyesville area as a result of increased visitation from both local and destination visitors. The Keyesville area is adjacent to the Lake Isabella Reservoir (Isabella Lake), which contributes to the increased visitation of the area. A series of single-track routes in the Keyesville area are used by motorized and non-motorized bike users. Routes of all types in this area have proliferated in recent years. This area also provides public access to the Lower Kern River, which is a popular fishing and rafting area. The BLM manages three rafting launch areas for access to the lower Kern River.

Taft

The Taft area has become popular for OHV users in recent years. OHV users, prohibited from cross-country travel, have made a vast network of single-track and two-track routes. User conflicts are less common in this area, but resource damage from the creation of extensive and unauthorized routes is common. The issue of legal public access to public lands within this area is a problem, and conflict with private property owners and other legitimate uses of public land has occurred.

3.11.4 ROUTE INVENTORY

The route systems within the decision area are widely scattered and disconnected; many parcels within the decision area have little or no legal or physical access. Routes in the decision area have been created and improved by trail and trailhead building, increased administrative access, campground and recreation facility construction, oil and mineral development, and various ROWs. Over the years, many of these routes have also become part of the roads and trail system frequently used by visitors who are engaged in mechanized and motorized recreation.

The 1997 Caliente RMP did not include a route inventory and limited travel to existing routes throughout most of the decision area. It qualified existing routes as those appearing on BLM surface management maps, aerial photographs, and USGS topographical maps at the time the plan was

completed. This policy was largely ineffective in addressing the proliferation of user-created routes and mitigation of environmental and social impacts.. Although no complete single record of such routes exists, data extrapolated from the various sources indicate that approximately 937 miles of routes within the Bakersfield FO were designated as "limited to existing routes." A separate decision continued the designation of approximately 41 miles of the PCNST to non-mechanized use only.

In 2009, the BLM completed an RMP decision-area-wide inventory that combined existing route information with updated inventories and new data. The completed 2009 Digital Inventory compared historic maps and GIS files, previously designated routes, route information from state and local governments, and current on-the-ground route inventories (completed as recently as December 2008), with recent aerial photographs and information provided by the public through a series of travel management workshops, to create the most complete and up-to-date route inventory possible. The creation of the 2009 Digital Inventory GIS files included redrawing digital route representations to reflect on-the-ground conditions, addition of routes visible on aerial photographs in areas unable to be processed in the field due to time, budgets, and access constraints, and removal of routes that did not exist. Appendix E provides greater detail of the route inventory and designation process.

The complete route inventory consists of over 6,000 linear travel features amounting to approximately 1,936 miles of routes within the RMP decision area. These numbers do not include routes within BLM rights-of-way and easements across other landowners' property. Considering the methods used in 1997 to designate routes, it is likely that a portion of the nearly 1,000 new miles of routes is attributed to those missed in the original designation, while another portion comes from new legitimately created routes. However, a fraction of this increase is attributed to unauthorized route creation.

Within the large-scale Decision Area-wide route inventory, two areas were of specific interest: the area around City of Taft and the public lands surrounding the communities of Lake Isabella. These two areas are known for heavy OHV use, which is why they were intensively inventoried in the field and highlighted for the travel management workshops. The field work, using GPS to collect accurate trail data, was completed in December 2008 and was included in the 2009 Digital Inventory. These two areas alone make up approximately 87 percent of the routes within the Decision Area, although the areas themselves account for less than a third of the public land. Table 3.11-3 lists the identified suitable mode of transport and surface type of inventoried routes within these two significant areas.

Table 3.11-3
Taft and Lake Isabella Route Information

Use	Miles
2-wheel-drive	455.6
4-wheel-drive technical	132.5
4-wheel-drive touring	978.8
ATV	30.2
Motorcycle	86.1
Surface Type	**Miles**
Natural	1204.5
Gravel	18.7
Paved	459.1

Source: BLM 2010a

3.11.5 CHARACTERIZATION

3.11.5.1 Indicators

Indicators to measure trends in travel management include the size of designated areas for motorized use (e.g., open, limited, or closed), miles of routes and trails in limited use areas, miles of routes and trails where motorized, mechanized, and non-motorized uses are allowed, restricted, or not allowed depending on resource and use considerations.

3.11.5.2 Trends

Research shows that the demand for OHV use rapidly increased in the 1990s and continued into the first few years of this decade (Cordell et al. 2008). In 1995, approximately 368,600 OHVs and ATVs were sold. By 2006, that number had almost tripled to approximately 1,034,966 OHVs. Over a 10-year period, the total number of OHVs grew from fewer than three million to more than eight million in 2003. Sales from 2004 through 2006 totaled almost 3.25 million vehicles. Assuming at least one million new vehicles were sold in 2007 and that 80 percent of all vehicles are still operable, there would be as many as 9.8 million ATVs and off-road motorcycles in the US as of January 1, 2008 (Cordell et al. 2008).

OHV use is expected to continue to increase, especially near Keyesville because of its proximity to southern and central California population centers and other popular recreation destinations. OHV use also is likely to increase in the SRMAs across the RMP decision area. Most receive heavy visitor use, with little law enforcement coverage and no developed facilities. These popular areas are thus subject to OHV overuse and visitor use conflicts. Use may become more concentrated in these areas as other places become more urbanized. Motorized users will likely look for areas with fewer recreation conflicts.

Non-motorized vehicle use close to urbanizing areas is expected to grow as population grows. Demand for hiking and mountain biking trails is expected to increase on public lands next to all of the municipalities in the Planning Area, as well as in areas close to major subdivisions outside of incorporated towns.

Nationally, the BLM is moving toward a system of limiting use to designated roads, primitive roads, and trails/areas and not encouraging extensive cross-country travel by motorized and mechanized vehicles. Current planning guidance requires identifying a defined travel management network system of areas, roads, primitive roads, and trails in all public land use plans (H-1601-1, Land Use Planning Handbook – Appendix C, Section D, attachment 2). The BLM expects that each RMP Record of Decision will include a system of designated routes for those areas in the limited category. Designations that are limited to existing roads and trails should be used only as an interim measure before the next scheduled RMP revision. Field managers may elect to add other additional limitations as necessary to achieve management objectives.

3.12 LANDS AND REALTY

Within the Decision Area public lands are scattered or in a checkerboard pattern ranging in size from 0.1 acres to 125,000 contiguous acres. Much of the public land does not have legal public or administrative access.

The Lands and Realty program utilizes various tools to aid in effective management of these lands. The program is divided into several broad categories that support management of public lands, interests in land, and federal mineral estate. These categories include Land Tenure, Land Use Authorization, Land Classification and Withdrawal.

3.12.1 LAND TENURE

Land tenure, or land ownership adjustment refers to those actions that result in the disposal of public lands and/or mineral estate and the acquisition of nonfederal lands or interests in nonfederal lands. The BLM has numerous authorities for "repositioning" lands to promote effective administration of public lands and serve best national interests. These land pattern adjustments are completed primarily through the use of land purchase, donation, exchanges, and direct or competitive sales.

3.12.2 LAND DISPOSALS

Within the Decision Area approximately 216,000 acres of public land and all mineral federal mineral estate are identified (*Caliente RMP, 1997*) for disposal through sale, exchange, or repositioning to new managers.

Interest is expressed by nearby landowners and other members of the public through phone calls, e-mails and letters of interest, to acquire lands or interests in lands from BLM through sale or exchange. These types of disposals of federal lands or interests only occur when national interest is served (e.g., the parcels do not contain important resources or represent significant federal investment).

3.12.3 LAND ACQUISITIONS

Land acquisition is driven by the transfer of lands either from other government agencies or purchases, donations or approval of land exchange proposals from the private sector. Principle acquisitions over the last decade have included the transfer of Piedras Blancas Light Station; National Petroleum Reserve 2; and portions of Atwell Island from other federal agencies and the purchase and donation of lands in several areas within Cyrus Canyon, the San Joaquin River Gorge, Atwell Island and designated Wilderness. Title to some of the parcels acquired through donation is subject to deed restrictions limiting use and development of the properties.

Besides acquiring fee title to lands, the BLM seeks to acquire interests in lands, such as easements to provide public or administrative access. Under BLM guidance the least restrictive form of access (i.e., public access) would be acquired when possible.

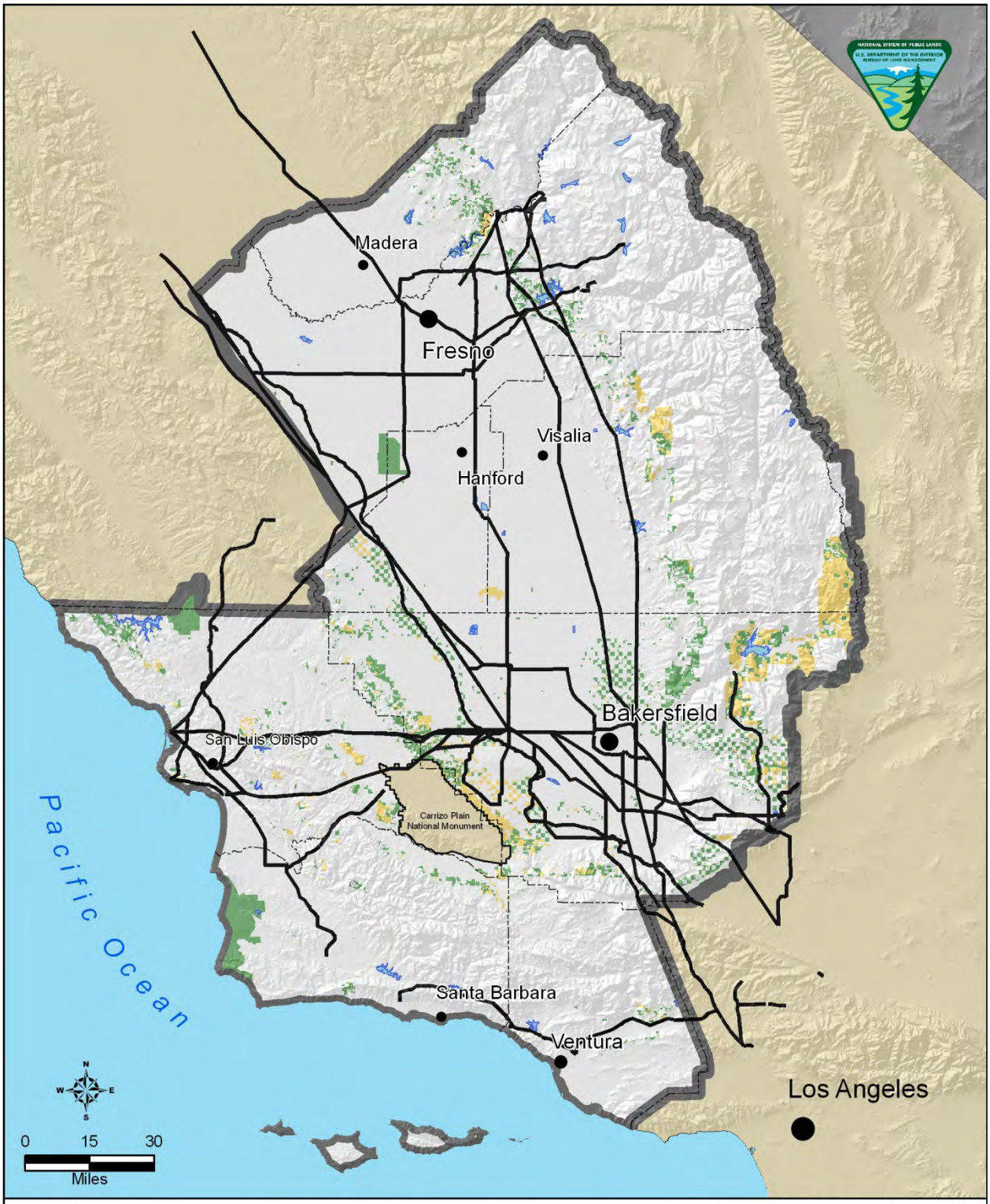
3.12.4 LAND USE AUTHORIZATIONS

Land Use Authorizations include a number of different types of approvals for use of public lands for private or other governmental purposes. These uses include wide variety of developments examples of which are pipelines, roads, transmission lines, apiary sites, commercial filming, large scale industrial sites, and communication sites. Types of authorization range from permits and leases (including Recreation and Public Purpose) to right-of-way grants. Authorizations generally are issued with a set of stipulations that prescribes allowable development with associated design features to address site specific resource values. Without authorization, use of public lands for these types of purposes is considered trespass.

Within the Decision Area, there are currently 950 active rights-of-way, over fifty percent of which are related to fluid mineral development. The Bakersfield FO completes approximately 40 right-of-way actions annually, including processing applications for new rights-of-way and amending, assigning, renewing, or terminating existing right-of-way grants. The number of active rights-of-way and other authorizations changes weekly as new authorizations are issued and existing ones expire or are terminated.

3.12.5 UTILITY CORRIDORS

The Bakersfield FO designated all existing and occupied utility corridors delineated in the Western Regional Corridor Study, completed by the Western Utility Group (Western Utility Group 1992) and updated in 2003, which identified priority utility corridors (Map 3.18). Future large scale utilities would be preferentially located in these areas.



Legend

- Bakersfield Field Office
- County Boundary
- Utility Corridors

Decision Area

- Public Lands
- Federal Mineral Estate

Designated Utility Corridors
Bureau of Land Management
Bakersfield Field Office

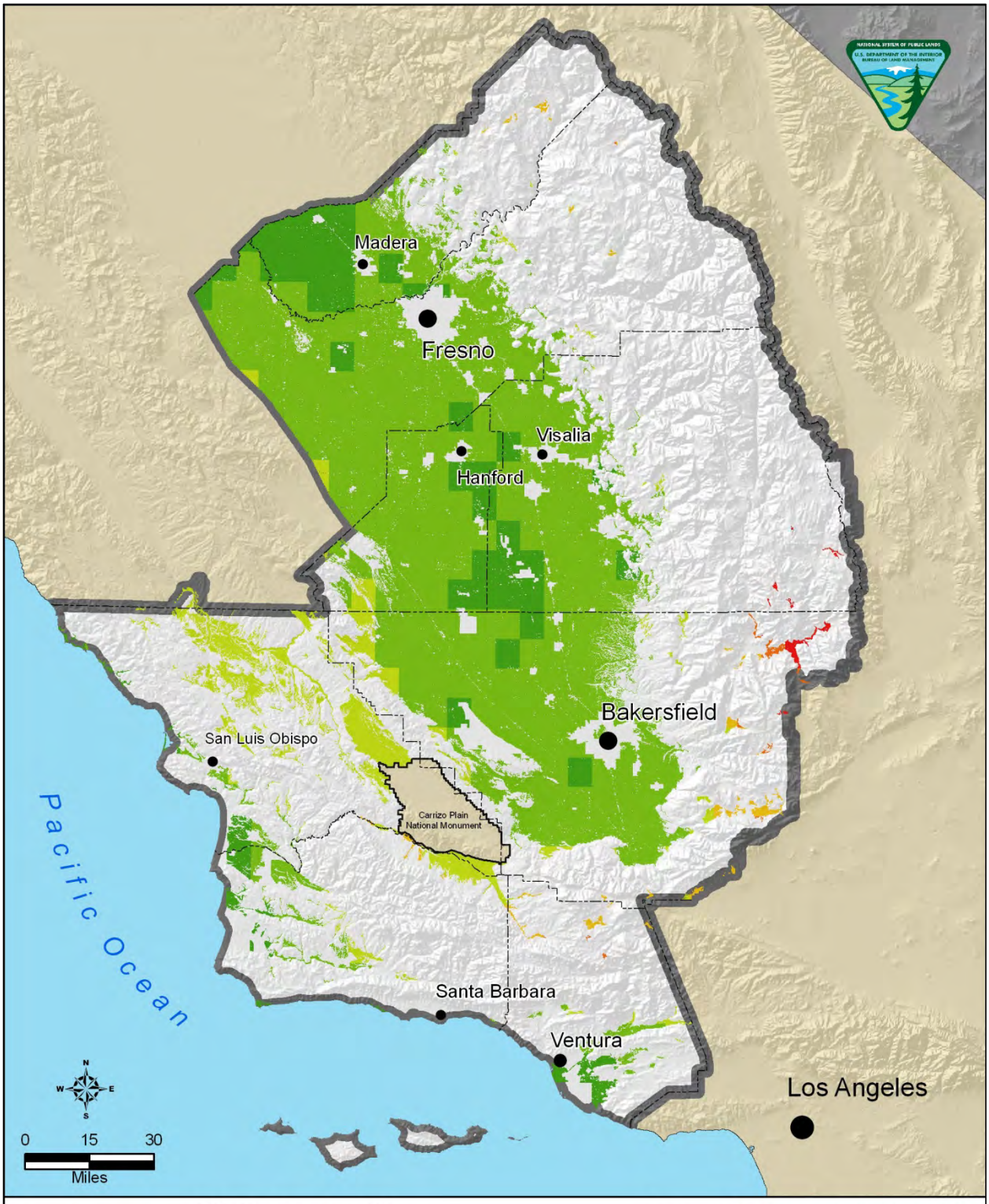
Map 3.18

3.12.6 RENEWABLE ENERGY

Renewable energy includes solar power, wind, and biomass resources. As demand has increased for clean and viable energy to power the nation, consideration of renewable energy sources available on public lands has come to the forefront of land management planning.

In cooperation with the National Renewable Energy Laboratory, the BLM assessed renewable energy resources on public lands in the western United States (BLM and DOE 2003). The BLM reviewed the potential for concentrated solar power (CSP), photovoltaics (PV), wind, biomass, and geothermal energy on US Department of the Interior, Bureau of Indian Affairs, and Forest Service lands in the West (Hydropower was not addressed). This report found that the Planning Area is not particularly well suited for development of solar (Map 3.19) or wind energy (Map 3.20), or biomass development at the utility scale (see Appendix M).

The BLM has developed a programmatic environmental impact statement at a nationwide level to address wind energy (*Programmatic EIS on Wind Energy Development on BLM-Administered Lands in the Western United States* [BLM 2005]) and a similar programmatic environmental impact statement is in progress for solar energy (*Solar Energy Development Draft PEIS* [DOE/BLM, 2010]), these documents have or will amend all existing land uses plans to adequately address the use of public lands for these purposes. Specific BLM guidance is provided for wind energy development in Instruction Memorandum No. 2009-043 (BLM, 2009), which requires the sensitive values of ACECs to be weighed against the potential for wind energy development and the need to restrict these utility scale wind energy projects for the protection of relevant and important values.



Legend

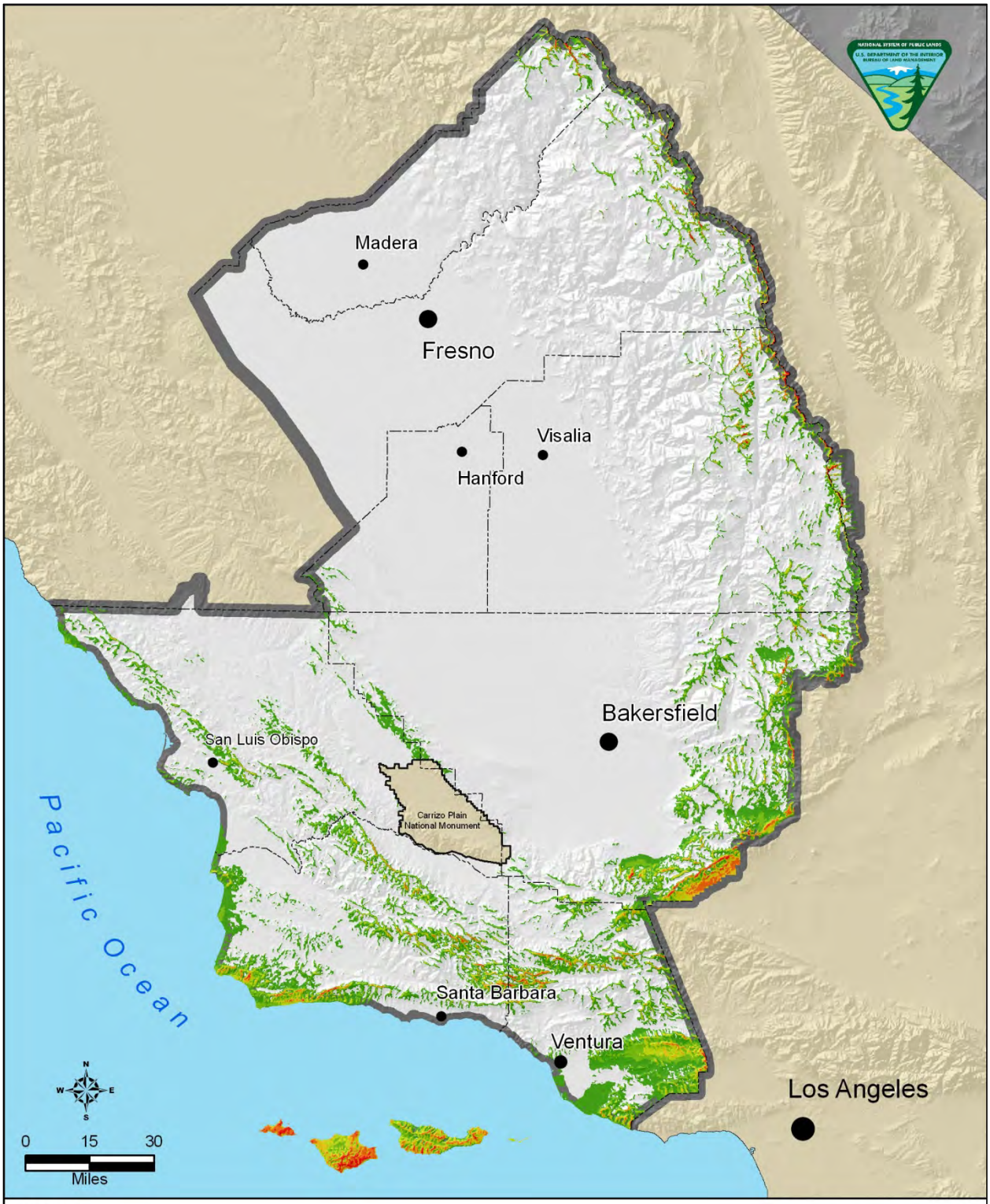
- Bakersfield Field Office
- County Boundary

Solar Potential (On slopes < 5%)
kWh/m2/day

- 7.5 - 8.0
- 7.0 -7.5
- 6.5 - 7.0
- 6.0 - 6.5
- 5.5 - 6.0
- 5.0 - 5.5

Renewable Energy: Solar Potential
Bureau of Land Management
Bakersfield Field Office

Map 3.19



Legend

Bakersfield Field Office

County Boundary

Wind Energy Potential

Class 7

Class 6

Class 5

Class 4

Class 3

Class 2

Wind Energy Potential
Bureau of Land Management
Bakersfield Field Office

Map 3.20

3.12.7 CLASSIFICATION AND WITHDRAWALS

Land classifications and withdrawals are for purposes such as establishing National Parks, National Forests, wilderness areas, Indian reservations, military installations, administrative sites, power sites, public water reserves, public roads, grazing districts, NCLWMAs, protection of natural areas, naval petroleum reserves, botanical areas, wildlife sanctuaries, and lighthouses.

There are numerous land classifications affecting the Decision Area. Many represent actions taken under outdated authorities and land management needs no longer current, having been replaced by other authorities.

As with land classifications, there are several existing withdrawals affecting the decision area; some of which are also outdated or have been superseded by current legislation. Of these withdrawals some are non-discretionary, such as, the withdrawal of designated Wilderness areas from the mineral entry and leasing, or the withdrawal from all forms of settlement, sale, location, or entry under the general land laws, including the United States mining laws, 30 U.S.C. Ch. 2 (1994), mineral leasing laws, 30 U.S.C. 181 *et seq.* (1994) and mineral material sale laws 30 U.S.C. 601-604 (1994), of Piedras Blancas Light Station (currently a 20 year withdrawal). Discretionary withdrawals include the withdrawal from application under the non-mineral public land laws and from disposition under the homestead, desert land entry and script selection laws for the Caliente, Monache-Walker Pass and Temblor National Cooperative Land and Wildlife Management Areas (NCLWMAs) and the withdrawal of the Piute Cypress Natural Area from all forms of appropriation under the public land laws, including the mining laws, but not from leasing under the mineral leasing laws.

In total, some form of withdrawal (mineral or non-mineral) affects approximately 176,000 acres of the Decision Area.

For withdrawals and classifications on BLM land, and with the exception of congressional withdrawals (such as National Parks, National Forests, and Indian reservations), the BLM has responsibility for administering (filing, recordation, etc) classifications and withdrawals on public lands administered by other federal agencies, such as the Forest Service and National Park Service; these are noted on the BLM official plats.

Under Section 204 of FLPMA, the BLM has been given the responsibility of reviewing all land classifications and withdrawals within the Decision Area.

3.13 LIVESTOCK GRAZING

Livestock grazing has taken place in this part of California since the early 1800s during the establishment of the California missions and the settlement of the Sierra Nevada. Extensive livestock grazing during the 1800s and earlier part of the 1900s have contributed to the unique landscape seen today, including: presence of fencing and other rangeland improvements, introduction and establishment of nonnative plant species, and the traditional use of livestock grazing in the environment. As a result of the Taylor Grazing Act of 1934, livestock grazing

operations (primarily for cattle, sheep, and horses) became more formalized through issuance of grazing leases and permits.

The BLM manages livestock grazing under 43 CFR 4100 its authority comes from several sources including;

- the Taylor Grazing Act of 1934, as amended (43 USC 315, 315a through 315r);
- the FLPMA of 1976 (43 USC 1701 et seq.), as amended by the Public Rangelands Improvement Act of 1978 (43 USC 1901 et seq.);
- Executive Orders that transfer land acquired under the Bankhead-Jones Farm Tenant Act of 1937, as amended (7 USC 1012), to the Secretary of Interior and authorize administration under the Taylor Grazing Act; Section 4 of the Oregon and California Grant Lands Act of 1937 (43 USC 118[d]);
- the Public Rangelands Improvement Act of 1978 (43 USC 1901 et seq.); and
- Public Land Orders, Executive Orders, and agreements authorizing the Secretary of the Interior to administer livestock grazing on specified lands under the Taylor Grazing Act or other authority, as specified.

Under this management, ranchers may obtain grazing permits or leases for an allotment of BLM-administered land, which has been allocated as available for livestock grazing in land use plans, on which a specified number of livestock may graze. An allotment is an area of land designated and managed for grazing livestock. The number of permitted livestock on a particular allotment is determined in part by how many animal unit months (AUMs) it supports. An AUM is the amount of forage needed to sustain a 1,000-pound cow, or the equivalent, for one month.

The vast majority of public lands grazing allotments in the Bakersfield FO are utilized in conjunction with intermingled private lands which act as the base for the livestock operations. In many cases, the use of public lands is an integral part of these operations; that are made viable, less complicated, or enlarged through the opportunities provided on public lands.

Within the Decision Area approximately 314,600 acres (78%) are allocated as available for livestock grazing and approximately 61,200 acres (15%) are allocated as unavailable for any livestock grazing. No previous allocation decision exists for approximately 26,900 (7%) acres in Fresno and Madera counties, the Atwell Island area, the Buena Vista Hills area, Cyrus Canyon and the Kennedy Meadows/ Lamont Meadow area that have been acquired or remain unallocated since the completion of the Caliente and Hollister RMPs. Interest has been expressed for authorized use of most of these unallocated lands and most are suitable for livestock grazing, with several being intermingled within existing allotments. Of the acres allocated as available for livestock grazing within the Decision Area, 295,400 acres have been divided into 116 grazing allotments. With some allotments being vacant and some permits or leases authorizing use on more than one allotment, the Bakersfield FO currently administers 78 active grazing permits and leases to 73 permittees/lessees (USDI, 2010). Currently 34,500 AUMs of active use could be authorized on the allotments within the Decision Area (see Map LG-A, in separate map packet and Appendix F-5 for allotment locations

and specific authorizations). Lands currently allocated as available for livestock grazing but without a current authorization (20,800 acres) provide an estimated unused grazing opportunity in the amount of 3,100 AUMs for a total potential of 37,600 AUMs throughout the Decision Area.

Current issues on livestock grazing allotments include areas of concentrated recreation use, such as at Case Mountain, Fresno River, Keyesville, San Joaquin River Gorge and the Temblors, where surface disturbance associated with route proliferation and dispersed camping, harassment of livestock away from desired grazing locations, and the need for increased fence maintenance is occurring, reducing allotment productivity.

Three allotments or pastures of allotments, whose boundaries are mostly outside the Decision Area but a portion lies within the Bakersfield FO, have livestock grazing managed through the outside approved RMP (Table 3.13-1).

Table 3.13-1
Management of Allotments Administered by Other RMPs

Allotment Number	Allotment (Pasture Name(s))	Acres in Bakersfield FO	Administering Office	Applicable RMP
#00015	North Temblor (Anderson, Recruit Grade, Sylvia, and Victoria pastures)	200	Bakersfield FO	CPNM RMP (2010)
#04309	Surprise Arroyo	1,300	Hollister FO	Southern Diablo Mountain Range and Central Coast of California RMP (2007)
#05008	Rudnick Common	7,000	Ridgecrest FO	California Desert Conservation Area RMP-West Mojave Plan Amendment of 2006

Conversely, four other allotments or pastures of allotments are mostly within the Bakersfield FO Decision Area but a portion of each falls within the Carrizo Plain National Monument. These allotments or pastures of these allotments have livestock grazing managed by the Bakersfield RMP (Table 3.13-2).

Table 3.13-2
Management of Allotments Extending Outside the Decision Area

Allotment Number	Allotment (Pasture Name(s))	Acres outside Bakersfield FO	Administering Office	Applicable RMP
#00015	North Temblor (American, Crocker Cyn., Santa Fe, Seventeen Cyn., and South pastures)	2,900	Bakersfield FO	Bakersfield RMP
#00039	Chimineas Ranch South	2,600	Bakersfield FO	Bakersfield RMP
#00096	Maricopa	1,200	Bakersfield FO	Bakersfield RMP
#03655	Wood Canyon	100	Bakersfield FO	Bakersfield RMP

3.13.1 STANDARDS FOR RANGELAND HEALTH AND GUIDELINES FOR LIVESTOCK GRAZING MANAGEMENT

Livestock grazing authorizations are managed to meet and maintain the fundamentals of rangeland health: (1) Watersheds are properly functioning; (2) Ecological processes are in order; (3) Water quality complies with state standards; and (4) Habitats of protected species are in order.

In 2000, the Secretary of the Interior approved the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing Management (BLM 1999a; see Appendix F-1), developed by the California State Director, in consultation with the public and with the BLM's Central California Resource Advisory Council. These standards and guidelines provide a clear statement of agency policy and direction for those who use public lands for livestock grazing and for those who are responsible for their management and accountable for their conditions. Rangeland health assessments are point in time assessments of rangeland health, as determined by an interdisciplinary team of experienced BLM staff specialists conducting an on-site analysis and using available information. These assessments are conducted and documented as described in Appendix F-1 to evaluate if grazing allotments are meeting the standards of rangeland health.

Local guidelines were established to describe the types of livestock grazing management actions that are appropriate and commonly applied within the Bakersfield FO to ensure that the resource objectives and the standards for rangeland and ecosystem health could be met while authorizing livestock grazing (Appendix F-2). These local guidelines correlate with the Central California Guidelines for Livestock Grazing Management but are generally more specific or more stringent; for example, seasonal restrictions on livestock grazing in riparian areas or restrictions on livestock grazing where threatened and endangered species are present. Applying these guidelines to appropriate grazing allotments occurs with consultation of affected grazing lessees/permittees. These guidelines are incorporated into the terms and conditions of each authorization, as appropriate.

The Central California Guidelines for Livestock Grazing Management (Appendix F-1) establish minimum residual dry matter (RDM) levels for annual rangelands within the allotments of the Bakersfield FO unless the Bakersfield FO specific guidelines indicate a different level. These guidelines will be applied to applicable grazing allotments as terms and conditions on corresponding grazing authorizations. Before the beginning of the grazing season, allotments with annual forages may be checked for "range readiness" to determine if minimum mulch or RDM levels are present. During and toward the end of the grazing season, individual allotments may be visited to determine if the range is approaching minimum threshold levels. Grazing may be terminated for the season if key areas within these allotments show that the minimum RDM levels have been reached.

The Central California Guidelines for Livestock Grazing Management (Appendix F-1) also establish maximum use levels for perennial rangelands within the allotments of the Bakersfield FO. These guidelines will be applied to applicable grazing allotments as terms and conditions on corresponding grazing authorizations. Before the grazing season starts, allotments with perennial forages may be checked for "range readiness" to determine if sufficient growth has been initiated and rainfall and

soil moisture conditions are adequate to maintain plant vigor throughout the scheduled grazing season. During and toward the end of the grazing season, individual allotments may be visited to determine use levels and form class criteria on key perennial plants. Grazing may be terminated for the season if key areas within these allotments show that the desired use levels and form classes have been reached.

Currently rangeland health assessments have been conducted on 97 allotments and 293,300 acres. Approximately 96% of the acres are meeting all rangeland health standards while 4% demonstrate some unhealthy conditions (Appendix F-3a).

3.13.2 Allotment Management Priorities

The BLM directs its funding, management and monitoring efforts to areas where they will be most effectively employed. As such, selective management categories are assigned to grazing allotments based on a specified set of criteria shown in Appendix F-4. This categorization results in either an Intensive, Moderate or Continue assignment.

The most emphasis is placed on "Intensive" category allotments. Currently, 21% of the allotted lands are in the Intensive category. In the "Moderate" category allotments, BLM provides a moderate level of effort to maintain condition or effect change. Currently, 67% of the allotted lands are in the Moderate category. In the "Continue" category allotments, BLM provides custodial management, while protecting existing resource values and conditions. Currently, 12% of the allotted lands are in the Continue category.

3.13.3 Rangeland Improvement Projects

Effective management of livestock grazing is dependent on the use of infrastructure to meet resource objectives. Range improvements are authorized physical modifications or treatments that are designed to improve production of forage; change vegetation composition; control patterns of livestock use; provide water; stabilize soil and water conditions; and restore, protect, and improve the health and productivity of public rangeland ecosystems to benefit livestock, fish, and wildlife. Within the Bakersfield FO they include fences, cattle guards, roads, water systems, prescribed burns, and exclosures, however, the inventory of range improvements is incomplete and some may be unauthorized.

3.14 Minerals Management

Mineral management programs include fluid minerals (oil, gas, and geothermal) and solid minerals (locatable, leasable, and salable). Fluid minerals are exclusively leasable; however, some solid minerals are also leasable such as phosphate and salt deposits that contain sodium or potassium. Calcium and carbonate salts are leasable or locatable, depending on their uses. The remaining solid minerals are generally locatable or salable. Locatable solid minerals are those such as metals and gypsum. Salable minerals are those such as common varieties of sand and gravel, clay, and rock.

The BLM manages oil and gas leases under Title 43 CFR, Part 3100, and geophysical exploration is covered under Part 3150. Geothermal leasing is managed under Part 3200, mineral materials under Part 3600 regulations, mining claims for locatable minerals under Part 3800 regulations, and solid leasable minerals, other than coal or oil shale, under Part 3500. A copy of the BLM's Mineral and Energy Policy is contained in Appendix G.

The authority for managing mineral resources comes from several sources including the;

- General Mining Law of 1872, as amended;
- Mineral Leasing Act of February 1920, as amended and supplemented;
- Mineral Leasing Act for Acquired Lands of 1947, as amended;
- Federal Oil and Gas Royalty Management Act of 1982;
- FLPMA, as amended;
- Mineral Materials Act of 1948;
- Surface Resources Act of 1955;
- Mining and Minerals Policy Act of 1970;
- Geothermal Steam Act of 1970 (30 USC 1004), as amended; and
- Energy Policy Act of 2005 (Oil and Gas).

In addition to the above authorities, where oil or gas is being drained from lands that are otherwise unavailable for leasing, whatever agency has jurisdiction over those lands is authorized to grant authority to BLM to lease those lands (43 CFR 3100.0-3(d). BLM would apply site specific stipulations provided by the surface management agency into any lease that falls into this category.

The decision area (acres) for mineral resources varies by the specific mineral or mineral group (i.e., for each specific acre the BLM may have interest in only fluid minerals, all leasable minerals, or all minerals). As such the decision area is presented separately for each mineral program. Adding to the complexity of mineral management and ownership, ongoing efforts to verify mineral estate ownership are showing that there are numerous federal parcels not shown in BLM records. These parcels are widespread and verification is only partially complete. The BLM expects that there are more yet to be discovered and recorded.

The largest decision area for minerals is approximately 1.2 million acres (fluid minerals) whereas the decision area for solid minerals is approximately 200,000 acres less, regardless of surface ownership. This includes 571,160 acres of "split estate"(defined by federal mineral estate underlying non-federal surface ownership), 395,750 acres where the BLM manages the surfaces, and 195,300 acres of federal mineral estate where the surface is managed by other federal agencies (including Dept. of Defense, Army Corps of Engineers, and Bureau of Reclamation). The BLM also manages all of the federal fluid minerals where the surface is managed by the U. S. Forest Service (USFS), U. S. Fish and Wildlife Service (USFWS), and National Park Service (NPS). However, those agencies have their own Land Use Plans that determine the availability of their lands for leasing, so those minerals are not included in the Decision Area for this Plan. The mineral estate is the dominant estate

meaning that the mineral owner has the right to access and develop the minerals. The current guidance and policy state that the surface owners are to be fully involved when decisions are being made that affect their use of the surface.

3.14.1 LEASABLE MINERALS

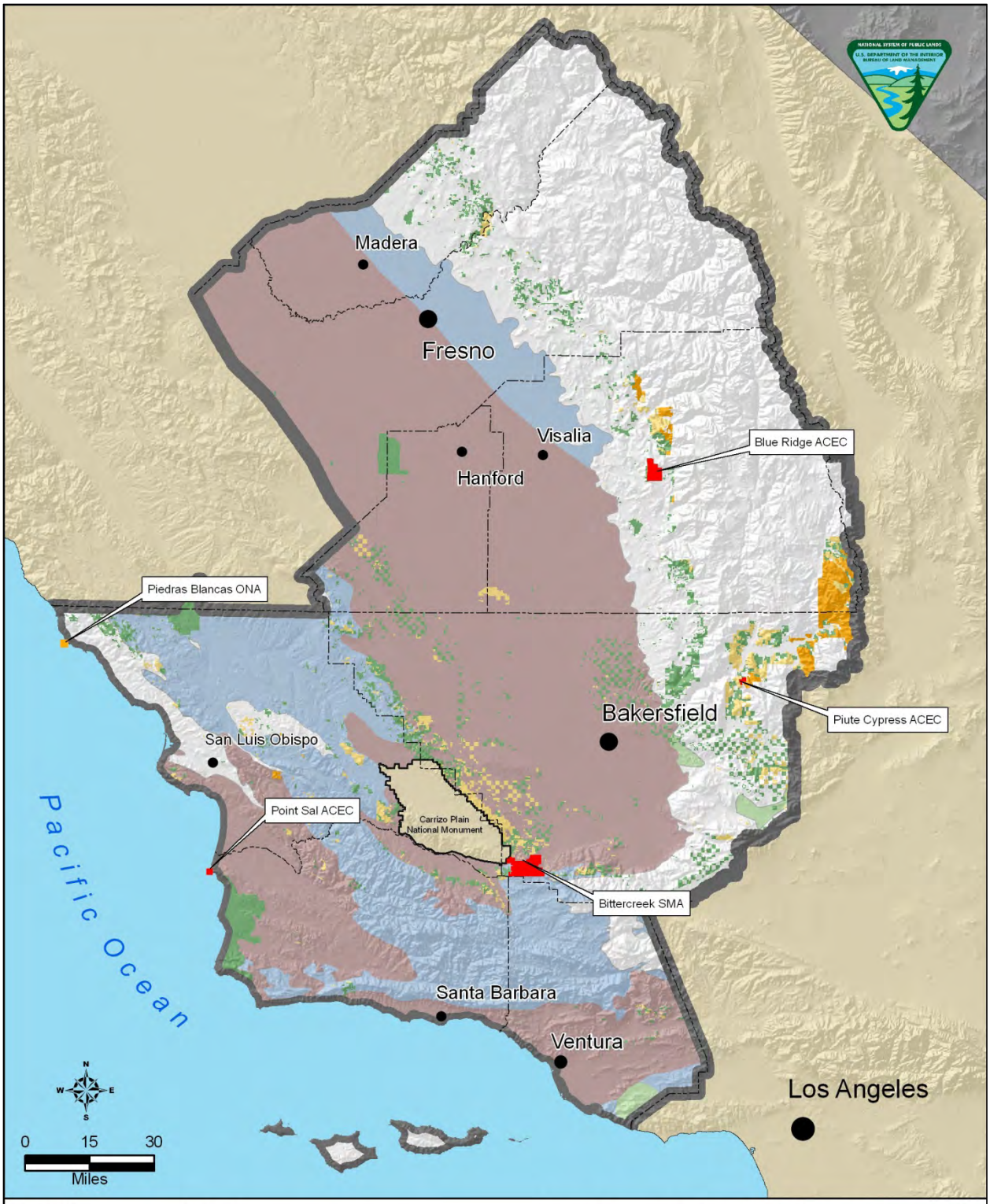
Leasables are those minerals to which the rights to explore for and produce these minerals on public land may be acquired only through a mineral lease. They are divided into the subsets of fluid leasable and solid leasable minerals. Within the Bakersfield FO fluid leasable minerals include oil, gas, and geothermal resources; solid leasable minerals include phosphate, sodium, and potassium minerals. Oil and gas and geothermal resources are leased through a competitive bidding process to allow the public to receive fair market value for leasing the right to explore and develop these resources. If oil and gas are produced, the lease owners pay a 12.5% royalty to the federal government on that production. For geothermal energy, the royalty varies case by case, but it is usually significantly less than 12.5%. Solid Leasable minerals may or may not be leased through a competitive bid process depending on the volume of leasable minerals that are leased. Solid Leasable royalties are calculated on a case-by-case basis.

3.14.1.1 Fluid Minerals—Oil and Gas

Within the Planning Area the areas of highest mineral potential for oil and gas occur in the southern San Joaquin Valley, primarily in Kern County. This area has been explored and developed since the 1870's and is one of the oldest and most prolific oil/gas basins in the United States. In fact, 8 of the 20 largest oilfields in the lower 48 states are located in Kern County. Total federal production from BLM managed lands in California FY 2010 was 20 million barrels of oil (54,500 barrels per day) and 5.2 billion cubic feet (14.4 million cubic feet per day), valued at $1.4 billion.

Moderate to high potential for fluid minerals exists outside the San Joaquin Valley region throughout the Coast Range; however, the southern Sierra Nevada Mountains are considered to have little to no potential for oil and gas (see Map 3.21). Other areas may still be considered to be high potential if certain criteria are met, even though they have not yet proven to be productive. In addition, because of the generalized nature of the maps, there are many smaller areas with little or no actual potential that are shown as areas of high potential. Within the Decision Area, 158,500 acres are considered to have high potential for oil and gas occurrence.

One of the ways that areas with potential for oil or gas are evaluated and discovered is through geophysical surveys. The most widely used geophysical surveys are seismic surveys. There are two primary methods of generating seismic data for these surveys - either through the use of large vehicles (vibroseis, or "thumper trucks") or by placing small explosive charges in shallow (5-25 ft deep) holes to generate sound waves which are monitored through a large grid of sensitive microphones.



Legend

- Bakersfield Field Office
- County Boundary

Oil & Gas Potential

- High
- Moderate
- Low
- None

Closures

- Discretionary Closures
- Non-discretionary Closures

Decision Area

- Public Lands
- Federal Mineral Estate

Areas Currently Closed to Oil and Gas Leasing Showing Oil and Gas Potential Bureau of Land Management Bakersfield Field Office

Map 3.21

Most of the production in the Decision Area comes from heavy oil that is found in shallow reservoirs. Heavy oil is very thick and cannot easily travel through the reservoir and requires more wells for extraction. To aid in the commercially viable production of this heavy oil, steam injection is often required to allow the oil to flow. These factors result in increased costs for production and also contribute to the large quantities of produced water that must be disposed of or else treated and turned back into steam. Typically, as much as 95 percent of the total produced fluid is water, not oil, and this water usually contains significant concentrations of dissolved solids, the disposal of which is regulated primarily by the California Regional Water Quality Control Board.

Virtually all oil fields in California are well past their peak production rates, with many nearing the end of the reserves that can be extracted economically. However, sustained higher oil prices and new technologies, such as enhanced oil recovery techniques and drilling microholes with less expensive rigs, and horizontal drilling, can significantly increase the percentage of oil recovered profitably. It is possible that with new technology, these fields will have many more years of useful life.

The pattern of development in the Planning Area is different from that of the rest of the country. From 1995 to 2008, only two percent of all wells drilled were on leases that were issued within the last 30 years. The remaining wells were drilled on leases that were more than 30 years old, and in most cases, on leases that are nearly 100 years old. From 1995 to 2008, 2,740 wells were drilled in the Decision Area, an average of nearly 200 wells per year, with a range of fewer than 100 to a high of 428. These trends are reasonably foreseeable and expected to continue as explained in the Reasonably Foreseeable Development Scenarios (Appendix M).

An MOU exists with the California Division of Oil, Gas, and Geothermal Resources (CDOGGR) and the BLM to coordinate regulatory oversight. Under this MOU, BLM is given the responsibility for authorizations occurring that involve any federal mineral estate within the Decision Area. In order to prevent the need for dual or conflicting permitting, BLM has agreed to enforce the more stringent requirements between the two agencies.

Within the Decision Area 1,011,360 acres are currently open for oil and gas development subject to varying restrictive surface use stipulations. There are currently about 540 leases covering more than 214,000 acres at the time of writing. Approximately 290 leases are held by production (wells are actively producing thus continuing the lease term), while the remainder are mostly still in their primary lease term.

Currently the Bakersfield FO applies seven stipulations to new leases addressing issues such as special status species, critical habitat, lands under the jurisdiction of the Department of Defense, and raptor species. Since many of the existing leases predate the Caliente RMP, these stipulations were not attached to these leases. However, in practice, there is little or no difference in on the ground operations due to compliance with law, regulation, and policy (e.g., ESA and NHPA). Therefore these operators still provide the same level of mitigation/compensation, and follow all the same practices (SOPs and avoidance measures) as those specifically provided for in new lease stipulations. These same stipulations apply to both federal and split estate leases.

3.14.1.2 Fluid Minerals—Geothermal

Within the Planning Area potential for geothermal resources exists throughout the mountainous and coastal regions (see Map 3.22). Although there is known potential, the majority of areas are not hot enough or resources are not extensive enough to support utility scale geothermal development.

There are currently no federal geothermal leases in the Decision Area.

Within the Decision Area 992,860 acres are open to geothermal leasing and development. Often, geothermal leasing is restricted in conjunction with oil and gas leasing, however, the Case Mountain ACEC is specifically closed. In addition, all other ACECs were closed to geothermal leasing in the Record of Decision for the Geothermal PEIS (BLM, 2008) unless specifically determined otherwise in this RMP.

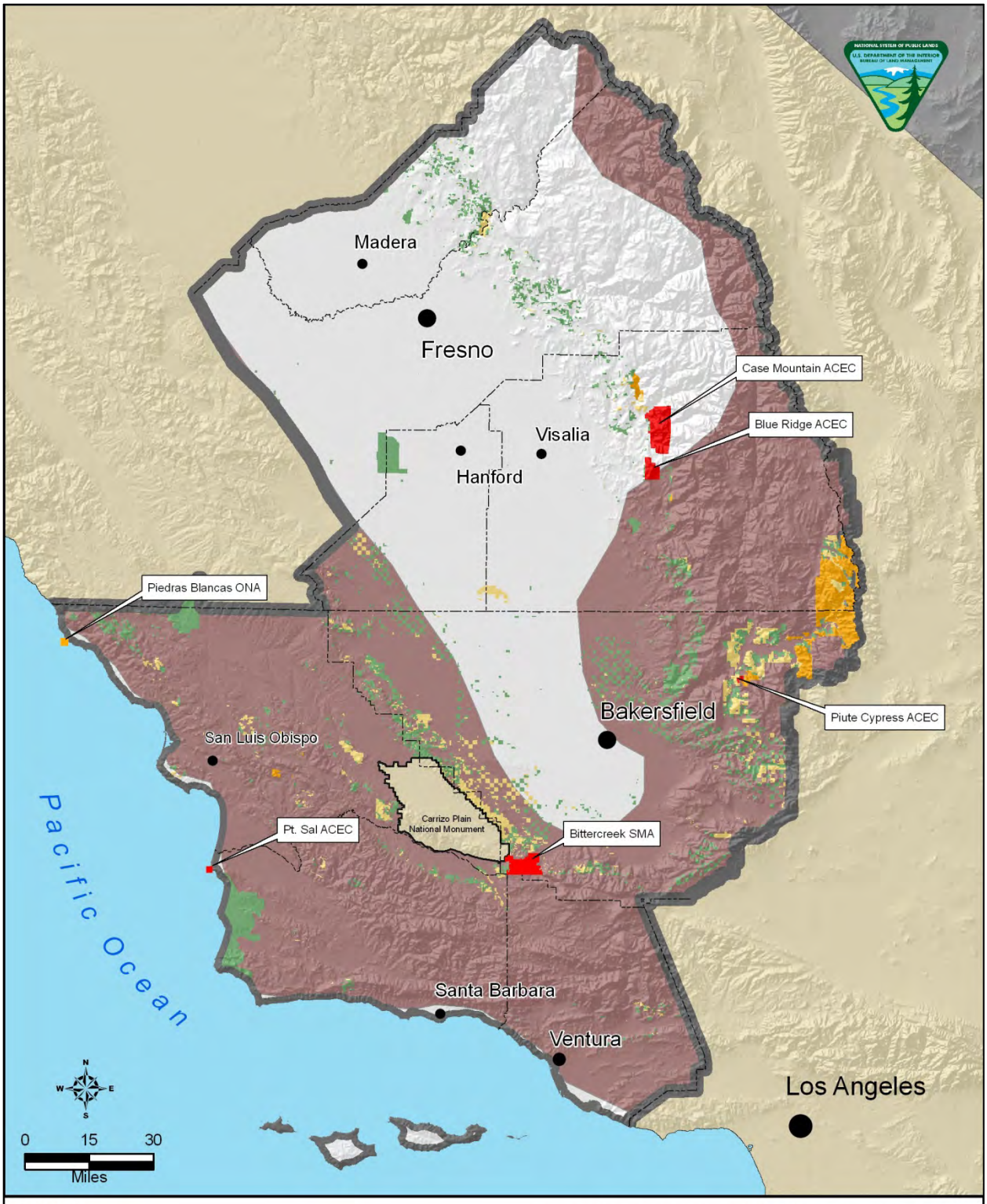
3.14.1.3 Solid (non-energy) Leasable Minerals

Within the Decision Area, approximately 35,000 acres (Map 3.23) of mineral estate are classified as being potentially valuable for solid leasable minerals (phosphate/sodium/potassium) that are open for exploration and development.

The BLM has classified several areas as potentially valuable for phosphates within the southern Coast Ranges. Three of these areas have small tracts of public lands within them, although two areas have large tracts of public land: the southern end of Morales Canyon northwest of New Cuyama and the east side of the Temblor Range, from just south of McKittrick Summit north to State Highway 46.

Phosphate has been prospected south of New Cuyama, east of Creston, at Pine Mountain and near Chico-Martinez Creek on the east side of the Temblor Range. Over the past 20 years, there have been about a dozen phosphate prospecting permits or leases within the Planning Area, most of which have been on lands administered by the US Forest Service. All of these permits are either dormant or expired.

Within the Planning Area three areas have been classified as potentially valuable for sodium and potassium. Saline minerals have been produced from Soda Lake in the Carrizo Plain, Lockwood Valley near Mount Pinos, and Proctor Dry Lake near Tehachapi. Soda Lake (addressed in the CPNM RMP) was mined from the 1880s until about the 1920s for salt and sodium sulfate. Borate minerals were mined within the boundary of Los Padres National Forest in the Lockwood Valley early in the 1900s, and salt was produced from Proctor Lake, east of Tehachapi.



Legend

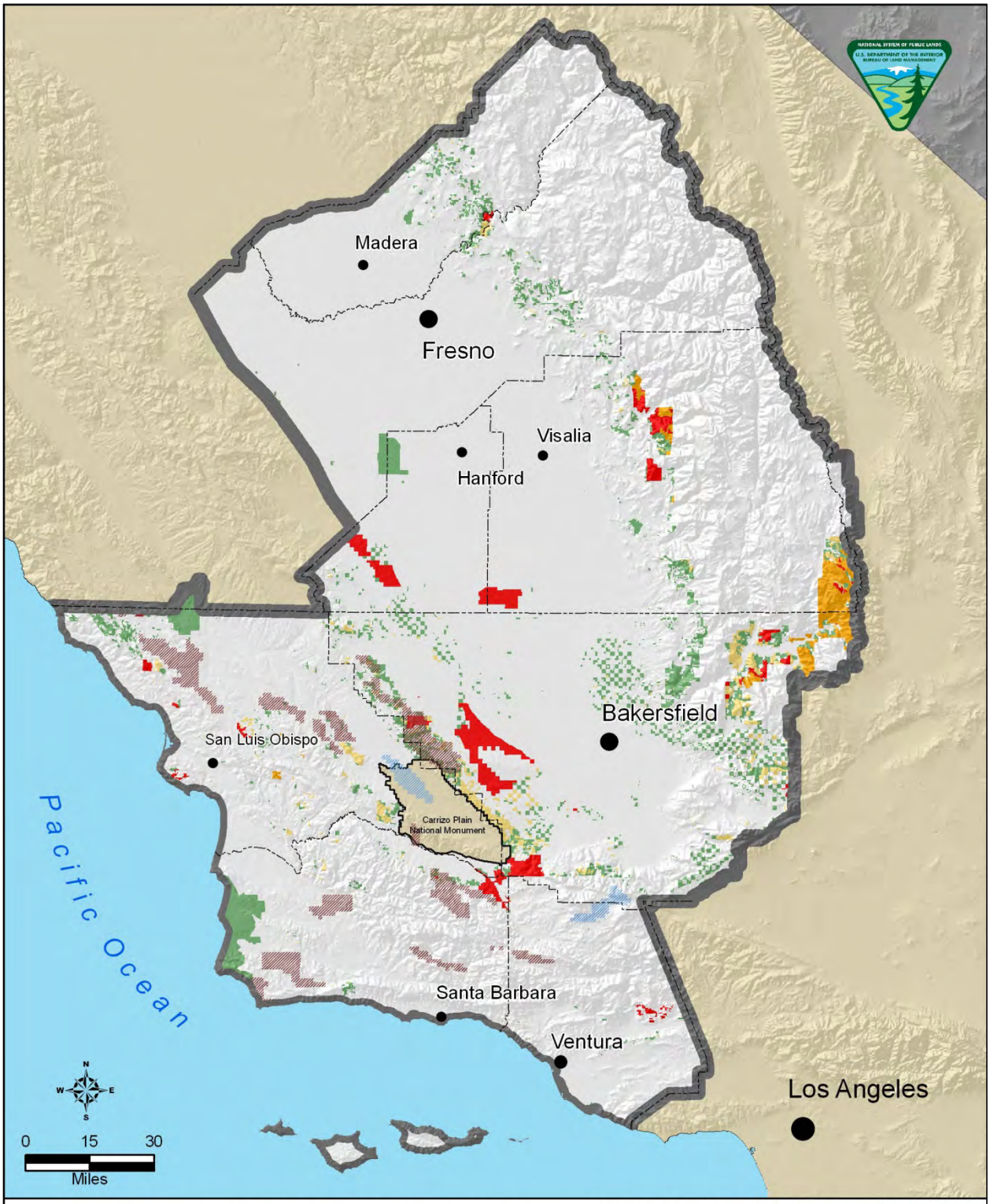
- Bakersfield Field Office
- County Boundary
- Discretionary Closures
- Non-discretionary Closures
- Lands with Geothermal Potential

Decision Area

- Public Lands
- Federal Mineral Estate

Areas Currently Closed to Geothermal Leasing Showing Lands with Geothermal Potential Bureau of Land Management Bakersfield Field Office

Map 3.22



Legend

- Bakersfield Field Office
- County Boundary

Decision Area

- Bureau of Land Management
- Federal Interests Addressed in this RMP

Closures

- Non-descretionary Closures
- Descretionary Closures

Lands Potentially Valuable Solid Leasable Minerals

- Lands Potentially Valuable for Phosphate
- Lands Potentially Valuable for Sodium / Potassium

Lands Closed to Solid Leasable Minerals Showing Potentially Valuable Lands Bureau of Land Management Bakersfield Field Office

Map 3.23

3.14.2 LOCATABLE MINERALS

Locatable minerals are those for which the right to explore, develop, and extract mineral resources on federal lands open to mineral entry is established by the location (or staking) of lode or placer mining claims, as authorized under the General Mining Law of 1872, as amended. An area withdrawn from the mining laws is no longer available for the staking of new claims; for all claims made prior to the withdrawal valid existing rights would be respected. A validity exam may be conducted by BLM at any time, and must be conducted before a plan of operations can be approved for locatable mineral development on that claim. The withdrawal from the General Mining Law does not impact the exploration and development of non-locatable minerals.

In general, metallic minerals are locatable. Locatable minerals found within the Planning Area include: gold, copper, tungsten, asbestos, mercury, magnesite, chromite, and uranium. Potential for locatable minerals exists throughout the mountainous and coastal regions (see Map 3.24).

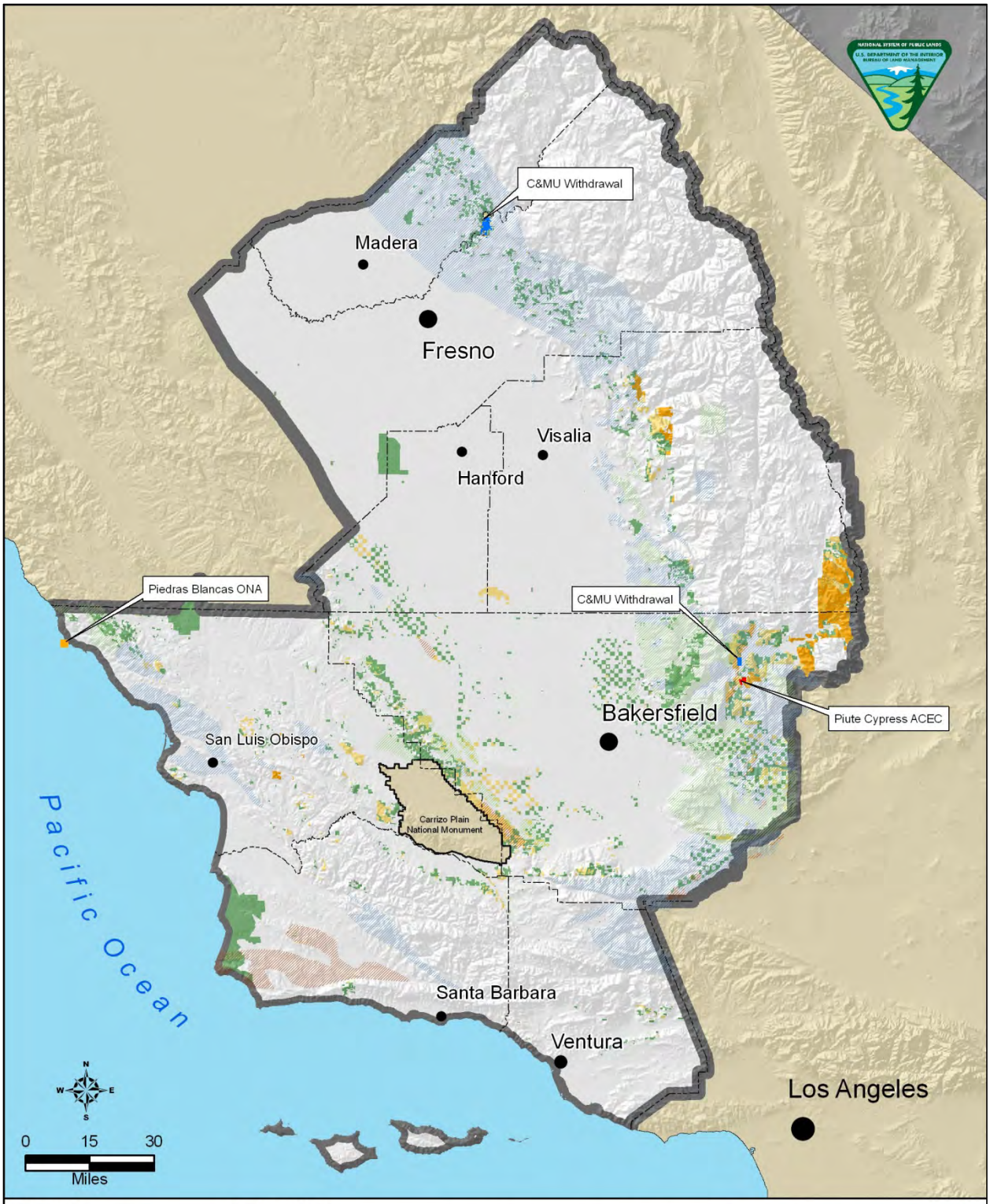
Within the Decision Area, 924,700 acres are available for location of mining claims. The areas currently withdrawn from the location of mining claims include: the non-discretionary withdrawal of designated Wilderness Areas and Piedras Blancas Light Station; and the discretionary withdrawals of portions of the Piute Cypress ACEC (February 1965), the Keyesville SMA (1960s), and the San Joaquin River Gorge for a total of approximately 121 590 acres. Of these acres, approximately 21,000 acres are in areas of high locatable mineral potential for exploration and development.

Currently there are 364 mining claims within the Decision Area; of these, there are four commercially active projects that have active Plans of Operation or Notices. Many of the remaining claims are held through maintenance (i.e., annually filing) and activities are primarily casual use. This activity is usually considered a recreational activity and managed under casual use regulations. BLM rules for casual use are found in 43 Code of Federal Regulations 3809 and 8365.1-5. BLM has authority under its planning regulations to further define casual use on selected parcels of land.

A lingering legacy of America's mining history is abandoned mine lands (AML), which present a significant health and safety issue on the western landscape as addressed in the Public Safety and Health section. Resolving these problems is becoming a national priority.

3.14.3 SALABLE MINERALS

The BLM defines common varieties of sand, gravel, stone, pumice, pumicite, cinders, and ordinary clay as salable mineral materials (BLM 2004a). Salable minerals include materials used for building and construction, both commercially and privately. Sand, gravel, aggregate, lime (limestone), cinders, and building stone are the more common salable minerals in the Planning Area. Use of salable minerals from public lands requires either a negotiated sales contract or a free use permit from the BLM. The contract or permit may have stipulations to protect or mitigate impacts on non-mineral resources. Disposals of salable minerals from public lands are regulated by 43 CFR, Part 3600 and are completely discretionary.



Legend

- Bakersfield Field Office
- County Boundary

Locatable Mineral Potential

- High
- Moderate
- Low

Decision Area

- Public Lands
- Federal Mineral Estate

Lands Withdrawn from the Mining Laws

- C & MU Withdrawals
- Non-discretionary Closure
- Discretionary Closures

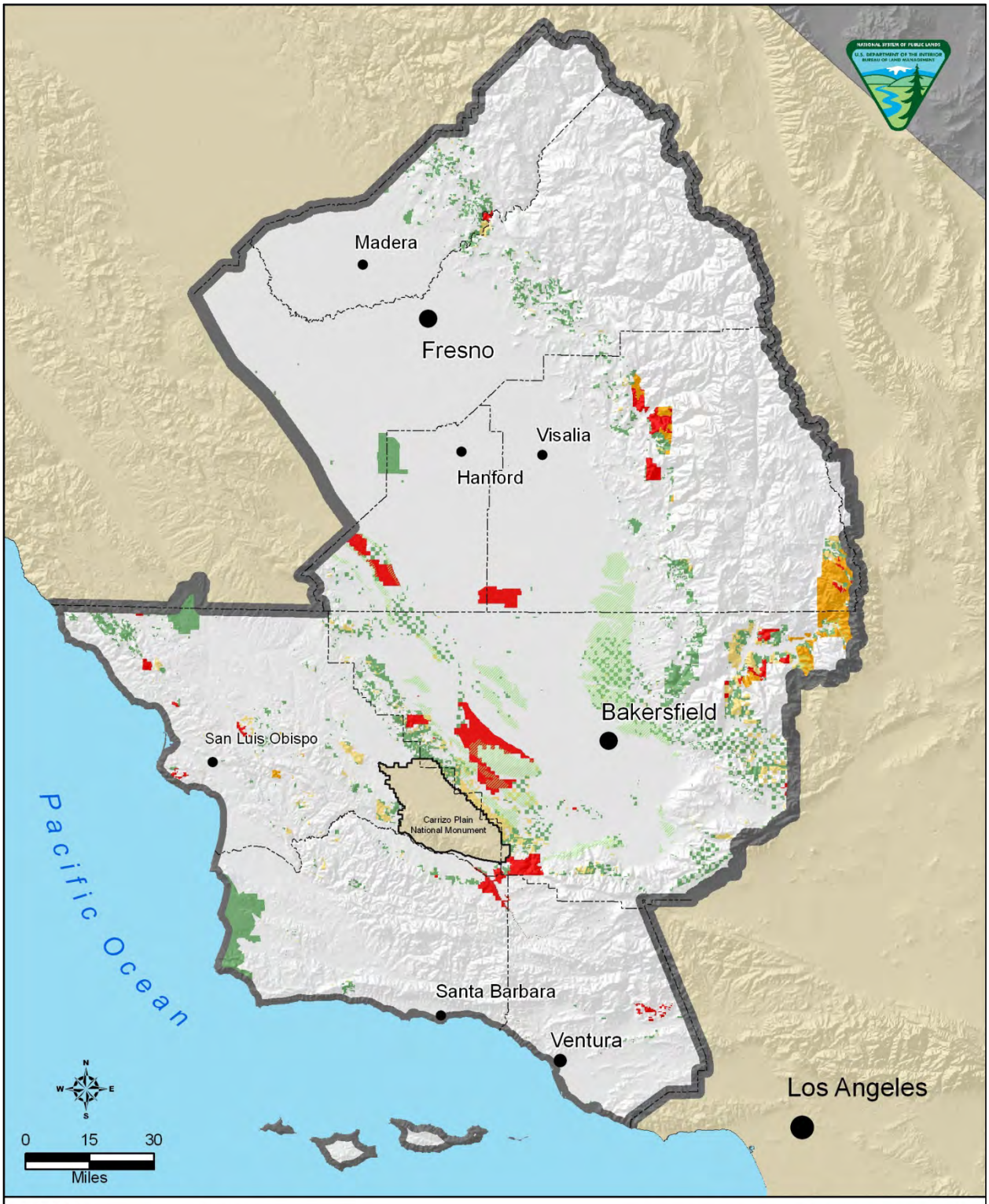
Areas Currently Withdrawn From Mining Claim Location Showing Locatable Mineral Potential
Bureau of Land Management
Bakersfield Field Office

Map 3.24

Geology, proximity to areas of demand, and presence or absence of roads determines the suitability of potential salable mineral materials for exploration and development in the Planning Area. Within the Decision Area there are 51,280 acres with potential for salable mineral development (see Map 3.25). Generally, the most accessible sources for sand and gravel are along river channels and floodplains; whereas granitic and volcanic rocks (used to produce crushed stone products) are found in the mountainous regions of the southern Sierra Nevada and Coast Ranges. Other salable minerals are found sporadically throughout the Planning Area.

Within the Decision Area approximately 817,690 acres are open to salable mineral development. The areas closed include the non-discretionary closure of designated Wilderness Areas and Piedras Blancas Light Station, and a discretionary closure. Combined these area have approximately 8,000 acres of salable mineral potential.

Currently, six salable mineral extraction operations are active within the Decision Area. This includes: two mining operations for diatomaceous (siliceous) shale near the communities of Taft and Maricopa; a gypsum mine near Lost Hills; a basalt mine west of Atascadero; and three sand and gravel pits in the Kern River Valley area. In addition, expression of interest in mining limestone has been received for the Tehachapi area.



Legend

- Bakersfield Field Office
- County Boundary

Saleable Mineral Potential

- High
- Moderate
- Low

Closures

- Non-discretionary Closures
- Discretionary Closures

Decision Area

- Bureau of Land Management
- Federal Interests Addressed in this RMP

Lands Closed to Saleable Minerals Showing Saleable Mineral Potential Bureau of Land Management Bakersfield Field Office

Map 3.25

3.15 RECREATION AND VISITOR SERVICES

Public lands in the Bakersfield FO provide opportunities for a variety of outdoor recreation and related benefits. While most users participate in dispersed recreation, either individually or in small groups, organized events with both participants and spectators occur routinely. Many of these visitors view public lands as an escape from their day-to-day routines and as places for individual challenge and exploration, along with social development and an appreciation for the natural world.

The many types of dispersed and organized uses provide for a diverse range of visitor needs and expectations. However, public land is not the sole source of recreational settings and opportunities, and many additional opportunities exist on other federal, state, and county lands and at facilities throughout the Planning Area. Other lands and facilities include parts of Sequoia/Kings Canyon National Parks, Sequoia, Sierra, Los Padres, and Angeles National Forests, and several California state parks and OHV areas.

3.15.1 RECREATION MANAGEMENT STRATEGY

Until recently, management of the BLM recreation program has been based primarily on providing a diverse array of programs that focused on specific activities. This activity-based management style was in response to the rapid growth in public lands recreational use and generally achieved the desires of the public and the goals of the agency advocates. However, focusing on specific activities often caused the recreation program to function in isolation of other resources and interrelated functions. To counter this, the BLM is transitioning recreation program management to a benefits-based management style that focuses on outcomes to individuals, communities, economies, and the environment. Benefits-based management integrates the management of recreation settings with desired recreation opportunities and benefits to these sectors.

Several key BLM publications have moved the management style in this direction: Recreation 2000 Strategy (BLM 1989) and update (BLM 1995), the US Department of Interior's (DOI) Strategic Plan for Recreation, and the BLM's Priorities for Recreation and Visitor Services Work Plan (a.k.a., the Purple Book) (BLM 2003). The BLM is writing a recreation and visitor services handbook and updating Manuals 8300 and 8400 to reflect the changes in management style and to provide updated guidance to future recreation and visitor services planning.

3.15.2 RECREATION SETTINGS

To assist in implementing the benefits-based management style, recreation settings are characterized and organized in a system defined by Recreation Setting Characteristics Matrix (RSCM) (Appendix H). The RSCM first defines the current recreation setting and then allows for the prescription of a setting that would best facilitate the desired outcomes and benefits. This system considers the physical, social, and operational characteristics of six settings on a spectrum, from "Primitive" through "Urban," and gauges such variables as the amount of development, remoteness, potential for isolation, and visible management controls. The six settings and their primary characteristics are as follows:

Primitive. An essentially unmodified natural environment of fairly large size with minimal evidence of others and very low interaction between users. Extremely high probability of isolation, independence, tranquility, and closeness to nature. Areas are essentially free from evidence of human-induced restrictions and controls, and motorized and mechanized uses are not permitted.

Backcountry. A predominantly natural or natural-appearing environment of moderate to large size. Opportunities to experience isolation, independence, and tranquility exist to some degree. Interaction between users is low, with some evidence of other users. On-site controls and restrictions are minimal and subtle. Motorized use is not permitted.

Middle Country. A natural-appearing environment of moderate to large size. Low concentration of users with evidence of other users. Few opportunities to experience isolation and independence. On-site controls and restrictions are minimal and subtle. Motorized use is permitted.

Front Country. Predominantly natural-appearing environments with moderate evidence of the sights and sounds of man. Interaction between users is moderate with evidence of other users prevalent. Visible resource modification and use that generally harmonize with the natural environment. Conventional motorized use is provided for in facilities construction and design.

Rural. A substantially modified natural environment. Resource modification and use are visible and needed to protect resources from intensive use. Sights and sounds of humans are readily evident, and user interaction is moderate to high. Facilities are provided for special activities and are designed for large numbers of people and intensified motorized use, including parking.

Urban. A substantially urbanized environment with natural-appearing elements. Visible renewable resource modification and use. Large numbers of users, with sights and sounds of humans predominant. Facilities available for highly intensified motor use and parking, with mass transit often available to carry people throughout the site.

3.15.3 Existing Recreational Setting and Opportunities

The Decision Area provides the gamut of recreational setting, from primitive opportunities within one of seven congressionally designated Wilderness Areas to urban experiences at the Piedras Blancas Historic Light Station. However, generally, the dispersed public land can be categorized as Front Country and Rural, close to well traveled routes and often exhibiting true multiple-use characteristics, combining industrial and commercial uses of public lands with efforts to protect and preserve sensitive resources.

The opportunities provided on public lands are as vast as the settings in which they occur. Commonplace is such activities as camping, hiking, hunting, OHV use, and shooting. In addition,

some areas are especially known for their mountain bike and trail riding opportunities, while further still, opportunities for cultural exploration, causal use prospecting, and white-water rafting are tied to specific locations or resources within the Decision Area.

Table 3.15-1 shows the estimated percentage of participation activity groupings during the 2009 reporting period. Estimates are derived from the Recreation Management Information System (RMIS), a BLM recreation information database. About three-quarters of visitors to public lands participated in camping and picnicking, while only one-fifth of visitors were reported as engaging in OHV activity. Although the information is somewhat useful, the accuracy of visitor numbers and the formula used to compute these figures is based on estimates and approximations that have been extrapolated across the Decision Area and are based on only a few survey points.

Table 3.15-1
Percentage Participation in Recreation Activities (2009)

Activity Groupings	Percentage Participation
Non-motorized boating	7%
Camping and picnicking	75%
Driving for pleasure	4%
Fishing	15%
Hunting	13%
Interpretation, education, and nature study	50%
Non-motorized travel	60%
OHV travel	21%
Specialized motor sports, events, and activities	<1%
Specialized non-motor sports, events, and activities	15%
Swimming and other water-based activities	13%

Data from BLM RMIS based on fiscal year 2009 reports and formula.

Although this use occurs and is reported across the Decision Area, several areas specifically along the coast and within the Central Valley have limited opportunity for any recreation due to constraints on access, such as no public easements. Some use is anticipated to still occur on these areas, resulting from access across private property, either illegally or with permission from neighboring property owners. Conversely, a number of easily accessible and historically visited areas receive intense visitation and essentially comprise most of the reported activity and visitation.

3.15.4 Recreation Management Areas

All areas have intrinsic recreational value, however not all these areas require specific management of those values. As such, Recreation Management Areas (RMAs) are delineated to identify those areas with management needs and further refined between Extensive RMAs (ERMAs) and Special RMAs (SRMAs).

3.15.4.1 Areas Not Managed for Recreation

The decision to specifically identify areas not managed for recreation result from new direction contained in the Revised Recreation and Visitor Services Land Use Planning Guidance (BLM, 2011).

These areas essentially replace the custodial level of management assigned previously to the ERMA designation. As such, custodial management is reactive to problems and issues that arise, as opposed to pro-actively providing opportunities and directly managing the recreation resource.

As these areas are not specifically managed for recreation, desired objectives for settings and targeted activities, benefits and outcomes are not identified or managed for.

The Decision Area currently contains no areas identify as not managed for recreation; although in areas where management focus is on other resources (e.g., heavily developed oilfields) or lands are not publically available (e.g., land locked by private property or closed to the public) this designation would be suitable.

3.15.4.2 Extensive Recreation Management Area

With the advent of the areas not managed for recreation the ERMA designation changed purpose from those areas receiving only custodial management to areas with identified recreation objectives, managed settings and specifically detailed management actions and allowable uses. Recreation management within these areas is no longer only responsive to adverse conditions, but pro-actively seeks to facilitate visitor participation in targeted activities, eliminate potential use conflicts and protect environmental resources.

Although these areas require increased level of financial support and personnel, they are not the focus of the BLM's recreation management objectives.

Currently all lands within the Decision Area except the identified SRMA are managed as either the Hollister or Caliente ERMA.

Many of the areas within the ERMA have no legal public access and support only recreation limited to those with permission to cross the private property or those who illegally trespass. Those areas with access support a variety of dispersed activities including; OHV riding, camping, hunting and fishing, sightseeing, pleasure driving, rock and mineral collecting, picture taking, picnicking, hiking, horseback riding, and mountain biking. Of the few dedicated facilities that exist, most address the basic needs for visitor health and safety (e.g., Restrooms etc.) and the provision of information to the public (e.g., kiosks etc.). These facilities include;

- Bert's Park, a wayside stop along California State Highway 178 in the southern Sierra Nevada, providing visitors with a scenic view, picnic tables, and barbeque grills;
- Walker Pass Campground and PCNST trailhead along California State Highway 178, providing a pit toilet and several designated sites with picnic tables and fire rings.
- Case Mountain, a trailhead and several user-created mountain bike trails within the Case Mountain ACEC;
- Atwell Island Project, a wildlife habitat restoration project undertaken jointly with the Bureau of Reclamation and the US Fish and Wildlife Service. A short trail and a network of

roads provide opportunities for nature study and wildlife observation, and new facilities, including trails, are being developed;

- Piedras Blancas Historic Light Station is a historic light station on the California coast near San Simeon. In 2008 the light station was designated an Outstanding Natural Area as part of the NLCS. BLM staff and volunteers routinely provide light station tours. No public access is permitted unless as part of a tour or as permitted though a Special Recreation Permit (SRP). Further discussion of the Piedras Blancas Historic Light Station can be found in Section 3.4, Special Designations.

3.15.4.3 Special Recreation Management Areas

The SRMA designation is a management tool used to identify areas that require special prescriptive management and subsequent activity level planning to achieve desired outcomes. The management in these areas addresses concerns before they become issues and provides facilities and programs to meet the needs of the agency, public and recreational demand.

The reasons for designating an SRMA can vary, but generally these areas are already intensively used, or the recreation that occurs requires careful management to ensure that other resources are not impacted and the recreation opportunities persist.

The Hollister RMP (BLM, 1984) as it applies to the Decision Area identified one SRMA; the San Joaquin River Gorge. The area (4,036 acres), originally designated the Squaw Leap SRMA, is located near the rural town of Auberry and sits astride the San Joaquin River, between Millerton Lake and Kerckhoff Reservoir and the Sierra National Forest in eastern Fresno and Madera Counties.

The predominant features of the SRMA are the San Joaquin River Canyon and Squaw Leap (elevation 2,370 feet), a mesa for which the SRMA was originally named. Principal activities within the SRMA are hiking, environmental education, nature study, hunting, fishing, mountain biking, recreational prospecting, and camping. Facilities within the SRMA are a Cultural Heritage Learning Center, which consists of a replica Native American village site, simulated archaeological dig, authentic bedrock mortars, and a nature trail, focusing on plants and animals of cultural importance. It also includes a small visitor center, a walk-in campground, a group campground, and several pond sites used for aquatic investigations. In addition to interpretive programs, visitors have access to over 22 miles of hiking and equestrian trails, including a National Recreation Trail.

The Caliente RMP (BLM, 1997) did not adequately describe designation of any SRMAs and consequently didn't analyze the impact of these designations in accordance with applicable policy at the time of writing. It did however identify two Special Management Areas for the purposes of biological (North Fork) or cultural (Keyesville) resource protection, that identified recreation as a contributing and important use of these areas. In the descriptive guidance for recreation management within the RMP the Special Management Area boundaries were identified to be used for SRMA boundaries in addition to one other area (Chimney Peak). Consequently these areas have

been managed as de facto SRMAs over the life of the Caliente RMP. Table 3.15-2 identifies the SRMA and de facto SRMAs and their associated acreages.

Table 3.15-2
Acreages Managed as SRMAs

Special Recreation Management Area	Acreage[12]
San Joaquin River Gorge	4,036
De facto SRMAs	
Chimney Peak	123,476
Keyesville Special Management Area	7,029
North Fork Special Management Area	4,472

Source: BLM 2010a

The Chimney Peak area is 70 miles east of Bakersfield in the southern Sierra Nevada. It extends north of State Highway 178 to the Planning Area boundary, encompassing the Chimney Peak Wilderness and parts of the Domeland Wilderness, the Owens Peak Wilderness, and the Sacatar Trail Wilderness. The PCNST and the Chimney Peak Backcountry Byway bisect the area.

Principal recreation activities occurring within this area are hiking/backpacking, camping, hunting, pleasure driving, and wilderness exploring. Facilities include two improved campgrounds, Chimney Creek and Long Valley, along with the following identified trails:[13]

- Pacific Crest National Scenic Trail (41 miles);
- Lamont Peak Trail (1.8 miles);
- Chimney Creek Trail (1.7 miles);
- Long Valley River Access Trail (0.3 mile); and
- Rockhouse Trail (3 miles).

The Lamont Peak Trail and the PCNST both have established trailheads with informational kiosks. The Chimney Creek Trail leads up the creek from the Chimney Creek Campground; it is unimproved and has fallen into disrepair. Both the Long Valley River Access Trail and the Rockhouse Trail lead to the South Fork of the Kern River within the Sequoia National Forest. The Long Valley Trail is unimproved, while the Rockhouse Trail is an old road; both provide access to the river for fishermen. All the trails within the SRMA support only non-motorized/mechanized modes of transport due to overlapping wilderness designation.

Both campgrounds have designated individual sites, including picnic tables and fire rings with access to pit toilets. Long Valley Campground has 12 sites, while Chimney Creek Campground is much larger, with 32 designated sites. In the past, water has been provided at each site in season, but both original systems have fallen into disrepair. The water system at Chimney Creek has been replaced.

[12]Acreages derived from GIS files and may not represent true measurements.
[13]Trails identified in RMIS from data collected for financial year 2008.

Two water sources are also identified along sections of the PCNST within the area, but they are not tested for potability, and their condition, rates of flow, and general health vary.

Historically, the Chimney Peak area received a large number of visitors to its improved campgrounds, but more recently deterioration of the main access roads, the Chimney Peak Backcountry Byway, and shifts in recreation use patterns and demand have resulted in a slowly declining level of visitation. In addition, more active and guided management of the congressional designated wilderness area has eliminated the need for special management of the recreational elements of the landscape.

The Keyesville Special Management Area is west of Isabella Lake and north of State Highway 178. It is divided by the Lower Kern River flowing from the Lake Isabella Dam and is crossed by State Highway 155 and Kern County's Keyesville Road. The area is bounded by the Sequoia National Forest to the north, east, and west.

Principal activities include dispersed camping, OHV riding (Section 3.3.4, Comprehensive Travel and Transportation Management), casual use prospecting, and kayaking, rafting, fishing, and water play. The area has a rich Gold Rush-era history, with the Keyes Gold Mine and Stamp Mill, the Walker cabin, and historic cemetery providing cultural exploration opportunities. The area is also widely used for horseback riding and mountain biking.

Summer is the season of heaviest use, when the area plays host to visitors from neighboring communities and Southern California, who camp in large family groups and use the site as an alternative to the nearby National Forest System campgrounds. During holiday weekends and periods of intensive use, Keyesville often finds itself acting as overflow for visitors to Lake Isabella.

Facilities within the Special Management Area include the raft launches at Slippery Rock, BLM South, and the Low Water Launch Site. A new site, Granite Launch, is being built to replace the Low Water Launch Site. These sites are available to all visitors, although commercial outfitting companies use them primarily. The area south of the Kern River has camping locations with fire rings, but, due to patterns of use, camping has overflowed these suggested sites, making them somewhat unrecognizable. Five vault toilets serve both north and south of the river around the launches and staging areas. Rented portable toilets are brought in to service crowds on three-day weekends.

Trails and routes that appeared on BLM surface management maps, aerial photographs, and USGS topographical maps at the time of the Caliente RMP (BLM 1997a) are considered designated, but many additional user-created routes exist. Many of these are widely accepted by the recreating public and have been given a variety of creative names. The BLM publishes a "Keyesville Special Management Area" brochure that identifies approximately 25 trails by name. In essence, all the trails within the area are user created and support the gamut of transportation modes, although OHV use is restricted south of Keyesville Road. Little to no signing of routes exists.

Next to Sequoia National Park, north of the community of Three Rivers and about two hours north of Bakersfield, the North Fork Special Management Area provides public access to the North Fork of the Kaweah River. The area is accessed solely by the Tulare County road known as North Fork Drive.

Principal activities in the area are water play, kayaking, fishing, and hunting. Three sites service the area: Paradise, Advance Site, and Cherry Falls. A recent land survey showed that most of the Paradise site, including a constructed boardwalk, viewing platform, and stairs, is on private property. The remaining two sites provide parking, an informational kiosk, and pedestrian trails to access the river, although neither area is large enough to accommodate historic use, and the terrain restricts further development. All three recreation sites were closed in 2007[14] to address resource concerns and gang activity in the area. As of this time, all three sites remain close, visitation has dropped, and management is essentially at a custodial level.

3.15.5 VISITOR USE

Visitors to public lands primarily come from the local communities within the resource area. The region as a whole; including other ownerships, does receive a number of visitors from outlying areas, including international visitors attracted to the renowned Sequoia and Kings Canyon National Parks and the four National Forests within the Planning Area. Undoubtedly, the large visitor base to these other areas spills over to the National System of Public Lands.

Table 3.15-3 shows the total visitation to the Decision Area over six years by visits and visitor days. A visit is one person's trip to resource area public lands; a visitor day is one person engaging in an activity for any part of one day. Both visits and visitor days have steadily increased from 2004 through 2009.

Table 3.15-3
Trends in Visitation for the Decision Area (2004-2009)

	2004	2005	2006	2007	2008	2009
Visits	287,665	296,387	344,579	324,148[15]	344,899	377,208
Visitor Days	175,466	178,485	210,061	198,757	210,869	276,825

Source: BLM RMIS [2004-2008]

In the foreseeable future, recreation demand will continue to rise as it has done in recent years, and the anticipated visitor use will continue to increase. The driving force behind these increases beyond overall population growth is the increasing economic pressures, such as the cost of living increases and an unstable economy, that result in people seeking opportunities that meet their recreational needs and achieve their budgets.

[14] *Federal Register*, Vol. 72, No. 160, Monday, August 20, 2007, Notices.
[15] Decrease in visitation most likely due to North Fork SRMA closure for public health and safety.

Table 3.15-4 shows visitation estimates for the ERMA, SRMA and Special Management Areas (de facto SRMAs). An estimated 377,000 recreation users visited the Bakersfield FO Planning Area in 2009. The Keyesville Special Management Area accounted for over 58 percent of that total. The San Joaquin River Gorge SRMA had the next highest visitor count, at approximately 22 percent of total visitors counted, and is consistently increasing in popularity each year for residents and guests.

Table 3.15-4
Recreation Visitation (2009)

Recreation Area	Annual Visitors
Bakersfield FO ERMA	8,200
Chimney Peak	61,807
Keyesville Special Management Area	218,153
North Fork Special Management Area	0[16]
San Joaquin River Gorge SRMA	83,171
Piedras Blancas Light Station[17]	5,877

Source: BLM RMIS 2009

Table 3.15-5 illustrates the trends in visitation. Although visitation has increased overall for the RMP decision area since 2004, not all areas have experienced an increase in visitation over the past six years. The Chimney Peak and North Fork area have had a decrease in visitation, while the Keyesville and San Joaquin River Gorge area have generally increased.

Table 3.15-5
Trends in Visitation (2004-2009)

Name	2004	2005	2006	2007	2008	2009
Chimney Peak	74,221	74,992	69,500	73,200	72,563	61,807
Keyesville	142,590	147,551	164,556	166,700	173,559	218,153
North Fork	44,445	46,651	42,000	4,000	0	0
San Joaquin River Gorge	8,740	16,931	58,591	69,848	86,557	83,171

Source: BLM RMIS 2004-2009

Although not represented in these tables[18] there are areas of the dispersed use that has intensified, and the need for increased management exists. These areas are as follows:

- Case Mountain, whose basic facilities are inadequate for the recreational demand. Recreation use in the area has historically been from the local community, but more recently it has become a destination for more extensive mountain biking. As use and visibility have increased, the demand for access for other recreation has grown, including hunting, camping, and trail riding. Issues in this area are compounded by one legal public access and no parking and extremely sensitive biological resources.

[16]North Fork SRMA was closed to public access in 2007 due to a number of resource concerns.
[17]Data from recreation use permit receipts.
[18] As no specific visitor use data exists.

- The Temblor Range, next to the Carrizo Plain National Monument and to the west of the community of Taft, has no facilities and no defined legal public access. However, approximately 24,000 acres of contiguous public lands are being used primarily for OHV activity. This alone would not warrant specific special management, but, due to recent closures of other off-road play areas, displaced users are relocating to the Temblor Range, and impacts of recreation on other resources are increasing.

3.15.5.1 Special Recreation Permits

A variety of commercial, competitive, and organized group uses occur within the RMP decision area. These uses are administered under SRPs, which allow specified recreational uses of public lands and related waters. The permits are issued to manage visitor use, protect natural and cultural resources, and provide a mechanism to accommodate commercial recreation.

Only a handful of SRPs are requested of the Bakersfield FO and include several annual competitive events, a number of commercial outfitters, and permits for occasional events. Examples include permits for commercial whitewater rafting and equestrian enterprises, mountain bike races, and large group activities. In 2008, visitation resulting from SRPs accounted for less than five percent of total visits to the resource area.[19] Over the last ten years, the Bakersfield FO has issued 30 SRPs, many of which were issued for multiple years. Unfortunately, many activities that require SRPs occur without authorization, due to a lack of public knowledge about the program, and enforcement difficulty, due to the dispersed nature of BLM-managed public lands within the Planning Area.

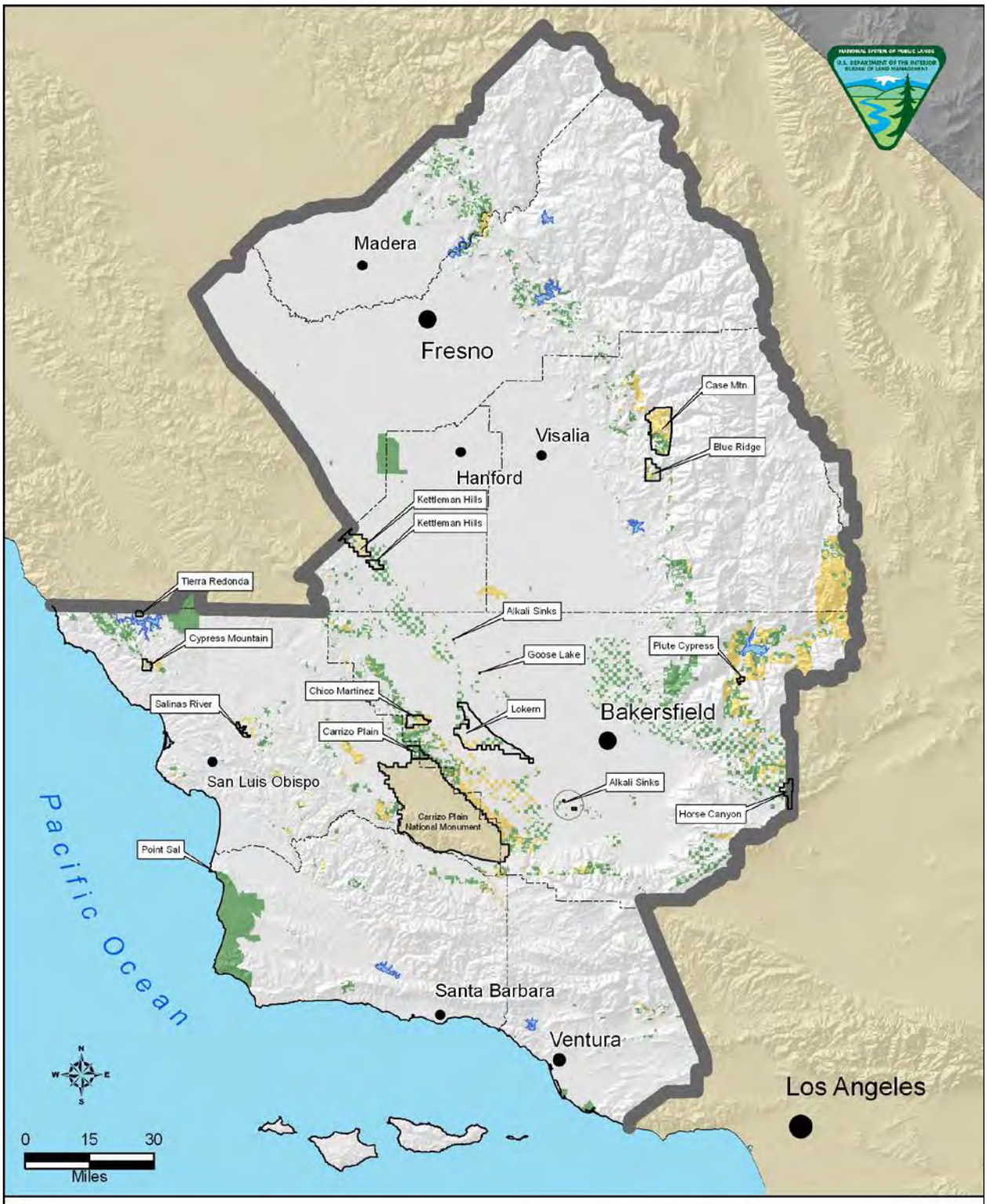
SPECIAL DESIGNATIONS

3.16 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

FLPMA Section 103(a) defined an ACEC as an area within public lands where special management attention is required to protect and prevent irreparable damage to important and relevant historical, cultural, and scenic values, fish and wildlife and other natural systems or processes, and to protect life and safety from natural hazards. BLM regulations for implementing FLPMA ACEC provisions are at 43 CFR 1610.7-2(b).

The Decision Area currently contains 13 designated ACECs (Map 3.26). In addition, through the public and internal scoping processes, a number of nominations for new or expanded ACECs were received. The BLM reviewed all such nominations to determine if they met the importance and relevance criteria required for consideration as an ACEC (see Appendix I). Of the nominations received, nine new proposed ACECs met the criteria, as did additional areas to four existing ACECs. Although both existing and nominated ACECs have been determined to process relevant and import values, the need for special management of these areas is addressed through the land use plan.

[19]Data collected from RMIS for fiscal year 2008.



Legend

- Bakersfield Field Office
- County Boundary
- ACECs

Decision Area

- Public Lands
- Federal Mineral Estate

Existing Areas of Critical Environmental Concern
Bureau of Land Management
Bakersfield Field Office

Map 3.26

The size of each existing ACEC and the values it is designed to protect are listed in Table 3-16-1.

Table 3.16-1
Existing ACECs in the Decision Area

ACEC	ACEC Size (acres)	Values
Alkali Sinks ACEC (BLM 1997)	402	Rare iodine bush series vegetation and associated wildlife.
Blue Ridge ACEC (BLM 1984a)	4,758	California condor, a federally endangered species. The ACEC is within the Blue Ridge Critical Condor Habitat Zone, designated by the US Fish and Wildlife Service in 1976 (*Federal Register*, Vol. 41, No. 187, September 24, 1976).
Case Mountain ACEC (BLM 1997)	26,468	Sequoia groves and sensitive plant communities.
Chico Martinez ACEC (BLM 1984b)	4,607	Significant exposures of important paleontological resources and geologic rock type formations.
Cypress Mountain ACEC (BLM 1997)	1,080	Rare and unique plant communities and watershed values.
Goose Lake ACEC (BLM 1984a)	40	Unique cultural, plant, and wildlife communities, which are rare in the agricultural region of the valley.
Horse Canyon ACEC (BLM 1997)	2,830	Significant cultural values, traditional cultural practices, and natural resources.
Kettleman Hills ACEC (BLM 1997)	9,794	Significant paleontological resources and federally listed plant and animal species.
Lokern ACEC (BLM 1997)	6,632	Threatened and endangered species and associated habitats.
Piute Cypress ACEC (Public Land Order 3530)	1,104	Piute cypress grove and associated rare plant species.
Point Sal ACEC (BLM 1984b)	77	Unique cultural, visual, geologic, and biological resources, including rare, threatened, and endangered plant and animal species.
Salinas River ACEC (BLM 1997)	1,604	Exemplary riparian area.
Tierra Redonda ACEC (BLM 1997)	412	Paleontological resources, the unique sand dune formation, coast live oak woodland, and the type locality for the Tierra Redonda rock formation.
Total Bakersfield FO	**59,808**	

3.16.1 EXISTING AREAS OF CRITICAL ENVIRONMENTAL CONCERN

3.16.1.1 Blue Ridge ACEC (4,758 acres)

The ACEC was originally designated for the protection of federally listed California condor, specifically roosting habitat, and continues to maintain these values. Located in central Tulare County nine miles north of Springville and 12 miles south of Three Rivers, the area encompasses the Blue Ridge Ecological Reserve and National Wildlife Refuge and contains all the public lands within the Blue Ridge Critical Condor Habitat Zone, designated by the U.S. Fish and Wildlife Service in 1976.

The Blue Ridge ACEC requires special management due to its importance in the recovery of the California condor. Management of the area is complicated by the land ownership patterns of the area; a mix of protected federal and state lands with private property where incompatible uses could occur.

3.16.1.2 Chico Martinez ACEC (4,607 acres)

The ACEC was designated originally for the protection of exposed paleontological and geological formations. It also contains habitat for state and federally listed wildlife species (San Joaquin kit fox, blunt-nosed leopard lizard, San Joaquin antelope squirrel) and sensitive plant species (Temblor buckwheat). The area is important because it is includes the type locations for named geologic formations (Zemorrian Stage). Furthermore, recent discovery of important cultural resources adds to the relevant values of this area.

The Chico Martinez area requires special management for the protection of its unique geological formations. These type localities are recognized by the scientific community as the defining examples for specific geological strata. Management of the area also helps conserve and aid in the recovery of a number of rare species.

3.16.1.3 Cypress Mountain ACEC (1,080 acres)

The ACEC was designated due to the presence of two rare vegetation types: serpentine chaparral and northern interior cypress forest. The Sargent cypress populations on this public land are considered one of the two finest examples of this rare vegetation and the best in public ownership.

The Cypress Mountain area requires special management for the protection of the Sargent cypress groves and the conservation of the rare serpentine vegetation. As many as 11 rare plant species may occur within the ACEC boundaries.

3.16.1.4 Horse Canyon ACEC (2,830 acres

The ACEC was designated because of the high number of sensitive cultural resources. The area also supports several sensitive plant species and important paleontological resources.

Horse Canyon requires special management because the area contains significant cultural resources that are valued and sacred to living Kawaiisu people, which gives it special worth and consequence. It is also distinctive because it lies somewhat at an interface between several Native American groups and likely yield important information about trade, resource procurement, and prehistoric lifeways, especially compared to any similar resources. The cultural resources, sensitive plants, and paleontological resources also have qualities that make them fragile, sensitive, and exemplary and are vulnerable to adverse change from subdivision and development of the adjacent private land.

3.16.1.5 Point Sal ACEC (77 acres)

The ACEC was established due to the presence of notable cultural resources. The archaeological sites are unique and among the premiere cultural resources along the southern coast region of

California. The district is on the National Register of Historic Places. This gives the archaeological district special worth, consequence, meaning, and distinctiveness, especially compared to any similar resources. The archaeological district also has qualities or circumstances that make it fragile, rare, irreplaceable, exemplary, unique, and vulnerable to adverse change. The ACEC also provides habitat for protected marine mammals and rare plants and contains good examples of coastal vegetation.

The Point Sal area requires special management to protect irreplaceable cultural resources, to help in the conservation of marine mammals and rare plants, and to preserve a vegetation type rapidly disappearing in other parts of coastal California.

3.16.1.6 Salinas River ACEC (1,604 acres)

The ACEC contains two rare plant species (*Cammissonia hardhamiae* and *Chorizanthe rectispina*) and a riparian system containing several rare plant communities such as central coast live oak riparian forest, central coast arroyo willow riparian forest, sycamore alluvial woodland and central coast riparian scrub. In addition, critical habitat for the South Central California Coast Steelhead ESU occurs within the ACEC on non-BLM land. Western pond turtle, a BLM California sensitive species also is present and this ACEC provides critical migratory and nesting habitat for Neotropical Migrating Birds.

The Salinas River area requires special management because the riparian zone along the river harbors a diversity of plants and animals, including rare and special management species, many of which are not found elsewhere in the Bakersfield Field Office. The sensitive plant and animal species and riparian habitats are fragile, sensitive, and vulnerable to adverse change.

3.16.1.7 Tierra Redonda ACEC (412 acres)

The ACEC is notable for a variety of botanical and geological resources. The site contains sensitive plant species, and is one of the largest concentrations of species of the native herb, *Chorizanthe*. It is the type locality for the Tierra Redonda formation and contains an excellent example of the Vaqueros formation, some unusual sand dunes (geological formations), and paleontological resources.

The Tierra Redonda ACEC requires special management to conserve habitat for sensitive plants and to preserve the conditions responsible for the presence of so many *Chorizanthe* species. Focused management is also needed to protect the type locality for the Tierra Redonda formation and the scientifically important example of the Vaqueros formation. Very little land administered by the Bakersfield FO within the Coast Ranges is underlain by the Vaqueros or Tierra Redonda Formations. This site provides students and scientists the opportunity for continued study of the geology, stratigraphy and paleontology of these rocks.

3.16.2 PROPOSED AND EXPANDED AREAS OF CRITICAL ENVIRONMENTAL CONCERN

The proposed and expanded ACECs are displayed on Map 3.27.

3.16.2.1 Ancient Lakeshores (1,985 acres)

This proposed ACEC combines Alkali Sink and Goose Lake ACECs and is expanded to include the Sand Ridge portion of Atwell Island that shares similar relevance values and exhibits the same importance criteria. It includes five locations in the southern San Joaquin Valley to protect both prehistoric cultural resources and habitats that developed on the lakeshores of the Tulare, Buena Vista, Goose, and other lakes that once dominated the area.

The Sand Ridge portion of Atwell Island contains significant archaeological sites indicating the area's occupancy as far back as the late Pleistocene. A number of these sites are eligible for inclusion in the National Register of Historic Places.

The habitats present exhibit prime examples of rare alkali sink communities and iodine bush series vegetation. The parcels also contain potential habitat for federally listed endangered species (San Joaquin kit fox and Tipton kangaroo rat) and a number of BLM sensitive plant species. The rare communities and vegetation types have largely been extirpated from the Central Valley by development such as conversion to agricultural fields and urbanization. This is exacerbated by pressure from competing plant species (perennial pepperweed and salt cedar) which have heavily infested portions of the area.

Portions of the proposed ACEC are considered to have high potential for the occurrence of oil and gas, and a portion is currently under lease. Development of which could put further pressure on the relevant values. In addition, illegal dumping and encroachment from adjacent agricultural activities continues to be a problem.

3.16.2.2 Bitter Creek (6,121 acres)

This proposed ACEC lies within and adjacent to, the Bitter Creek National Wildlife Refuge; which serves as a release and capture site for the southern California population of the federally listed California condor. The area contains Headwall Oaks, an important roosting area; supplemental feeding stations and is within the Southwestern Kern County essential condor area. Supplemental feeding in the Bitter Creek and nearby areas are particularly important for encouraging condors to forage away from the nesting areas at Hopper Mountain National Wildlife Refuge in Ventura County where there are hazards associated with the recreational activities, communication sites and oilfields. The Bitter Creek National Wildlife Refuge is closed to the public to protect refuge resources. For these reasons, the area has more than local significance, when compared to other condor habitat.

The condor roosting and foraging habitat requires special management attention because condors are particularly vulnerable to interactions with humans and even other wildlife. California condors are also one of the world's rarest and most imperiled vertebrate species. Currently, the most serious sources of human related mortality are lead poisoning, shooting, collision with powerlines, and the ingestion of small pieces of garbage. Recently, three condors have been lost to a mountain lion in the area.

The area is currently managed as the Bitter Creek Special Management Area, which closes the area to any fluid mineral leasing.

3.16.2.3 Compensation Lands (283 acres)

This proposed ACEC would contain and assimilate all lands acquired as compensation for habitat disturbance. It is the nature of compensation lands that they possess important wildlife resources and natural systems that have been identified for the conservation and recovery of threatened and endangered species. The acquisition and management of compensation lands fulfills a permit requirement under the Federal Endangered Species Act or California Endangered Species Act. As these lands have been specifically acquired for the protection of these values they are distinctive and more than locally significant.

The lands also have qualities or circumstances (e.g., deed restrictions) that require special management attention to ensure that these lands are managed over the long term consistent with the purposes for which they were acquired.

3.16.2.4 Cyrus Canyon (5,374 acres)

This proposed ACEC, located to the southeast of Kernville, contains a significant population of Kelso Creek monkeyflower, as well as other rare plant species. This is the northern most extent of this diminutive, narrowly distributed and rare monkey-flower. The area is important in the conservation of the monkey-flower since many of the other populations of this rare plant occur on private land and are subject to impacts from development. The species is known from only 10 populations and has a total range of only 70 square miles in the Kelso Creek and Cyrus Canyon drainages.

The Kelso Creek monkeyflower habitat in Cyrus Canyon has been degraded by urban encroachment, livestock grazing, wildfire, and motorized vehicle travel. A road through one large population was previously closed by BLM, but a subsequent illegal bypass has resulted in continued camping and target shooting activities in the area, with concurrent habitat destruction. Most of the proposed ACEC is currently Available for livestock grazing, except for the land recently acquired. Livestock grazing has contributed to soil disturbance within the main monkeyflower population. Therefore, this area requires special management to conserve habitat for these rare plant populations and help minimize the need to list this species as federally threatened or endangered.

3.16.2.5 Erskine Creek (4,019 acres)

This proposed ACEC; located approximately three miles southeast of the town of Lake Isabella, and adjacent to the Sequoia National Forest, is identified for protection of wildlife, natural systems and processes, including sensitive plants (Kern county larkspur, Piute Mountain jewelflower) and animal species (Townsend's big-eared bat), a riparian plant community and rare geologic features contained in marble/limestone outcrops. Several vertical caves are known to occur in the area, of which there are few examples within the Planning Area, giving the area more than local significance. The location

of these public lands; adjacent to communities of Lake Isabella and Bodfish, puts these sensitive values at risk urban encroachment.

The majority of the area is within the Monache-Walker Pass National Cooperative Land and Wildlife Management Area (NCLWMA) established on January 26, 1962, by Public Land Order 2594 and approximately two thirds occur within the Piute Cypress Wilderness Study Area (WSA).

The Erskine Creek area requires special management to preserve important geological features and to conserve important habitat for sensitive plants and animals The area is currently managed as the Erskine Creek Special Management Area, which closes the area to any fluid mineral leasing, recommends the proposal of a portion of the area for withdrawal from the mining laws and restricts grazing within the riparian area if resources concerns can be met.

3.16.2.6 Granite Cave (42 acres)

This proposed ACEC, located on the northern slopes of the Piute Mountains overlooking the community of South Lake, contains significant cultural resources and is considered an important location for Traditional Cultural Practices by local Native Americans. In addition the cave itself is rare geologic feature within the landscape with more than local significance. The area is currently managed as the Granite Cave Special Management Area, which imposes a No Surface Use stipulation on any fluid mineral leasing.

3.16.2.7 Hopper Mountain (4,974 acres)

This proposed ACEC, located adjacent to three important California condor areas; the Sespe Condor Sanctuary; Hopper Mountain Wildlife Refuse; and Sespe-Piru Critical Condor Area, and provides roosting and nesting habitat for the federally listed species. Considered to be the only area used by the southern California condor population for nesting gives the area distinction and greater than regional significance.

The nesting habitat also has qualities that make it sensitive and vulnerable to adverse change. Noise could cause adult birds to repeatedly flush from, or eventually abandon a feeding site, an active nest or prevent them from choosing an otherwise suitable habitat as nest site. General human activity could discourage condor use of habitat that may otherwise be suitable for nesting, perching roosting or foraging. Condors have been known to ingest small items such as bottle caps, nails, screws, nuts, washers, rags, electrical components and wire. Sixteen of the recent condor chicks hatched in the wild have been determined to have microtrash in their digestive tracts, eight have died, two were removed from the wild for recuperation, and two had emergency surgery and were returned to the wild.

The Hopper Mountain area requires special management to protect important habitat for the endangered California condor. The area is currently managed as the Hopper Mountain Special Management Area, which imposes a Limited Surface Use stipulation on any fluid mineral leasing, for protected species and recommends proposal of the area for withdrawal from the mining laws.

3.16.2.8 Irish Hills (1,654 acres)

This proposed ACEC, located approximately six miles southwest of the city of San Luis Obispo and southeast of Montana de Oro State Park, is identified for the protection of natural systems, including rare and endemic plant species and communities. The numbers of rare plant species and extent of their populations is considered unique and exemplary, giving the area more than local significance.

The Irish Hills area requires special management to conserve important coastal habitat for a suite of rare species. This is especially important in light of ongoing development and loss of native habitat in coastal California. Protection of this area is consistent with efforts by State and local government to preserve natural areas in this part of California.

The area is currently managed as the Irish Hills Special Management Area, which imposes a Limited Surface Use stipulation on any fluid mineral leasing.

3.16.2.9 Kaweah ACEC (27,041 acres)

The proposed ACEC expands and renames the Case Mountain ACEC to include the North Fork of the Kaweah River (and surrounding lands) which share similar relevance values and exhibit the same importance criteria. The area includes several large parcels of public lands, including two WSAs, and is highlighted for the protection of special status species and natural systems and process, including several giant sequoias groves and extensive cave systems occurring in the karst formations present.

In addition to the giant sequoia groves, a number of special status species occur in the area. California spotted owls and pileated woodpeckers have been observed in the mixed conifer and sequoia groves. Habitat is considered to be in excellent condition for the habitation of these two bird species. Pacific fisher has been documented along Salt Creek Road and several bat species, including four BLM-sensitive species, long-eared myotis, fringed myotis, western small-footed myotis, and spotted bat make use of the area. Southwestern pond turtles occur along Salt Creek with high numbers of juvenile pond turtles occur in the associated ponds. Two plant species, Kaweah brodiaea (state-listed as endangered) and Sequoia gooseberry (a BLM-listed sensitive species), are found growing in the area, and several hundred acres of suitable habitat exist for both.

The North Fork area contains the Advance Colony site, a part of the Kaweah Colony, a socialist utopian society formed in the 1880's. In 1886 they established Advance, a construction camp along the North Fork of the Kaweah, to access timber lands about eight miles to the east. Road construction began about three miles to the north of Advance and terminated in untouched forests of sequoia and other conifers. After four years of hand-labor, the road was finished and a lumber mill erected. By 1892 the settlements were abandoned.

There are no known mines within the proposed ACEC; however there are prospects for uranium, feldspar and tungsten. The potential for economic development of these minerals is considered low. There are no oil and gas leases within the proposed ACEC.

The Kaweah ACEC requires special management to protect habitat for sensitive plant and animal species, to insure the conservation of important groves of giant sequoias, and to protect the integrity of karst formations and associated cave systems.

3.16.2.10 Kettleman Hills ACEC, (13,695 acres)

The proposed ACEC expands the existing 9,794-acre Kettleman Hills ACEC to include the Kettleman Middle Dome area, which contains similar values of relevance and importance. The areas have important wildlife resource and natural system values as they contain occupied habitat for several San Joaquin Valley federal/state listed plant and animal species (including the San Joaquin kit fox, blunt-nosed leopard lizard, giant kangaroo rat, San Joaquin antelope squirrel, LeConte's thrasher, and San Joaquin wooly-threads). The areas provide a large scale remnant where the ecological process of the Valley upland habitats maintains ecological function and processes. The area forms a habitat linkage along the west side of the Valley for most of the assessed species and has been identified as a core recovery area. In addition, the area is known to contain significant paleontological resources that meet the relevant and importance criteria.

Some habitat damage has occurred due to sheep grazing and OHV trespass. Off highway vehicle activity and hill climbs have increased in recent years where access is not controlled. Saltbush populations have disappeared across a large portion of the landscape or been depressed in some locations because of wildfire and grazing. The loss of shrubs has eliminated habitat for shrub-dependent species such as LeConte's thrasher and sage sparrow. Oil was first successfully produced here in 1928, and has since produced over 440 million barrels of oil from Eocene, Oligocene, and Miocene reservoirs. The area has seen a recent increase in oil development. There has also been some mining of clay and gypsite from the area.

The Kettleman Hills ACEC requires special management to protect important habitat for listed and sensitive species and to preserve the integrity of the area as a habitat corridor in the San Joaquin Valley. This is especially important because much of the native habitat in the Valley has been lost to agriculture and other development.

3.16.2.11 Lokern – Buena Vista (15,465 acres)

The proposed ACEC expands the existing Lokern ACEC to include the Buena Vista area, which contains similar values of relevance and importance. The proposed area would be divided between two units; the Lokern Unit – located in western Kern County, east of the Temblor Mountain Range, north of the Elk Hills Range, and southwest of the town of Buttonwillow, and the Buena Vista Unit – directly southwest west of the Lokern Unit and northeast of the City of Taft.

These units are identified for the protection of both wildlife and natural systems. The area forms one of the largest relatively undeveloped remnants of the San Joaquin Valley natural habitats that sustain populations of the federally listed San Joaquin kit fox, blunt-nosed leopard lizard, giant kangaroo rat, Tipton kangaroo rat, and State listed San Joaquin antelope squirrel. The area is also

noted for its populations of the federally listed Kern Mallow along with several other BLM-sensitive plant species.

The Lokern Unit is considered to have high potential for the occurrence of oil and gas. Several oil and gas leases have been issued for the area, which is adjacent to several major oil fields. Interest in the area continues as demonstrated by several large scale geophysical exploration projects and recent exploration wells.

Two existing grazing leases occur in the Lokern Unit. Several rights-of-ways for pipelines, transmission lines and roads occur in the area. There has been recent interest in potential solar development due to the flat terrain and proximity to existing electric transmission lines. There are no active mining claims. Wide-spread damage from unauthorized use, theft, vandalism, and trespass occur within the Lokern Unit. Household dumping has occurred on a regular basis.

The Buena Vista unit is known to have high potential for the occurrence of oil and gas. There are current and long-existing oil and gas operations in portions of the area. In some sections containing long-existing oil field development, habitat disturbance exceeds the 10 percent objective for reserves. Habitat restoration has been initiated to reduce the habitat disturbance in excess of the 10 percent objective. Continued exploration and development is expected in the area and large scale geophysical exploration surveys have been proposed.

The Lokern-Buena Vista ACEC requires special management to preserve listed and sensitive species as well as to preserve an important large remnant of natural habitat in the San Joaquin Valley. The area is more than locally significant as it has been identified by the U.S. Fish and Wildlife Service and the California Department of Fish and Game and in the Kern County Habitat Conservation Plan as reserve areas for endangered species management to promote the conservation and recovery of endangered species.

3.16.2.12 Los Osos (5 acres)

The proposed ACEC is located within the town of Los Osos; it is contiguous with Morro Bay State Park and comprises a portion of the "greenbelt" connecting the area to Montana de Oro State Park. The area is identified for the protection of significant cultural values, wildlife and natural systems. The archaeological sites present display qualities that indicate eligibility for inclusion to the National Register of Historic Places; adding to their importance is the fact that many similar local sites have been lost due to urbanization and residential development. Biological values in the area include habitat for two endangered species (Morro Bay kangaroo rat, and Morro shoulderband snail) including designated Critical Habitat for the Morro shoulderband snail; a threatened plant species (Morro Manzanita); along with several sensitive plant species (San Luis Obispo wallflower and sand almond); and several rare and endemic plant communities (coastal dune scrub, central maritime chaparral, and pygmy oak forest). The proximity to the adjacent urban area and associated pressures from unmanaged use, places these sensitive, fragile and vulnerable values at risk.

3.16.2.13 Piute Cypress ACEC (2,517 acres)

The proposed ACEC expands the existing Piute Cypress ACEC boundary to include several parcels of non-contiguous public lands containing similar resource values. The existing ACEC is identified for the protection of natural systems, specifically the rare Piute Cypress plant community. The Piute Cypress community present is the largest and oldest colony comprising 50 percent of the total known range of the species.

The Piute Cypress area was identified through Public Land Order 3530 (30 FR 1193) on January 29, 1965 as a Natural Area [Secretarial designation] withdrawn from all forms of appropriation under the public land laws, including the mining laws, except the mineral leasing laws. Guidance provided in BLM Manual 1613 (BLM, 1988) indicates that overlapping ACEC designation is appropriate where special management provided by the ACEC is required to protect resources values in addition to the protection provided by the previous designation. The area is adjacent the USFS Piute Cypress Botanical Area and within the Monache-Walker Pass National Cooperative Land and Wildlife Management Area (NCLWMA) established on January 26, 1962, by Public Land Order 2594.

The area has moderate potential for tungsten and associated locatable minerals. It also has moderate potential for geothermal resources.

3.16.2.14 Rusty Peak (787 acres)

The proposed ACEC, located approximately eight miles west of Atascadero, and six miles north of Morro Bay in San Luis Obispo County, is identified for the protection of natural systems. Specifically the area contains rare plant communities and species (BLM Sensitive) endemic to the serpentine soils found in the area that are unique to the Decision Area and in limited extent on public lands nationwide.

Small amounts of chromite were produced from two mines within the area; in addition, there is a copper prospect with low to moderate potential for the occurrence of additional chromite. The potential for economic deposits of copper is extremely low. There are no oil and gas leases or mining claims and no land use authorizations.

The area is currently managed as the Rusty Peak Special Management Area, which imposes a Limited Surface Use stipulation on any fluid mineral leasing.

3.16.2.15 Upper Cuyama Valley (8,935 acres)

The proposed ACEC, located near the intersections of Santa Barbara, San Luis Obispo, Ventura, and Kern Counties (including acreage in each county), is identified for the protection of wildlife and natural systems. The area contains important habitat for blunt-nosed leopard lizard, Kern primrose sphinx moth, California jewelflower, and San Joaquin kit fox and has been identified in the *Recovery Plan for Upland Species of the San Joaquin Valley* as being critical for the protection of these species. Accumulation of these factors gives the area a distinct nature from surrounding lands and regional significance to protection efforts.

The Cuyama Valley has largely been converted to irrigated farmland (crops, vineyards and orchards); as such, the remnants of habitat found in the proposed area are increasingly susceptible to adverse change and encroachment from these land uses.

3.16.3 AREAS DROPPED FROM FURTHER CONSIDERATION

The areas dropped from further consideration are displayed on Map 3.27.

3.16.3.1 Atwell Island (7,145 acres)

The area was nominated through the public scoping process. After examination, the area has been determined to meet the relevance criteria for wildlife resource and natural systems because it contains habitat for threatened and endangered wildlife species and permanent and seasonal wetlands. The area does not however, meet the importance criteria as it does not present more than locally significant populations of these species and is not particularly vulnerable to adverse change as the area receives specific project management through an agreement with BOR.

3.16.3.2 Carrizo Plain Natural Area ACEC (121 acres)

The majority of the ACEC was incorporated into the Carrizo Plain National Monument (CPNM); therefore managed though a separate RMP (CPNM ARMP, 2010); the remainder of the ACEC is still subject to Bakersfield FO management. After review this area does not exhibit the significant historic, cultural, or scenic values, nor the same wildlife values or natural process and systems that occur within the larger portion of the original ACEC now managed as the CPNM. Therefore, it is determined this area no longer meets the relevance and importance criteria for designation as an ACEC.

3.16.3.3 Chimineas Ranch (6,594 acres)

This area was nominated through the public scoping process. After examination, the area has been determined to meet the relevance criteria for wildlife resource because it contains habitat for endangered and threatened wildlife species. The nomination also suggested the area contributes to a corridor linking Los Padres National Forest and CPNM. The area does not however, meet the importance criteria as it does not present more than locally significant assemblages of threatened and endangered species habitat and is not particularly vulnerable to adverse change as it is surrounded by CDF&G Ecological Reserve and USFS lands.

3.16.3.4 East Temblor Range (16,380 acres)

This area was nominated through the public scoping process. After examination, the area has been determined to meet the relevance criteria for wildlife resource and natural systems because it contains habitat for threatened and endangered wildlife species, including known occurrences of the federally listed giant kangaroo rat, San Joaquin kit fox and blunt-nosed leopard lizard, and California listed San Joaquin antelope squirrel. The habitat present is considered marginally suitable for many of the San Joaquin suite of species due to the steep terrain and is not identified in the *Recovery Plan for*

Upland Species of the San Joaquin Valley as a reserve or corridor area. A rare plant association (*Ericameria linearifolia)* also occurs through portions of the area; however these populations are not considered important on a regional scale.

While the area serves as a linkage between the CPNM and the western San Joaquin Valley, it lacks the importance criteria because it is not identified in the SJV Recovery Plan as a reserve or core area. The area is, however, exposed to increasing off-highway vehicle use and route proliferation and localized surface mining, but standard management practices are deemed adequate to protect these resources.

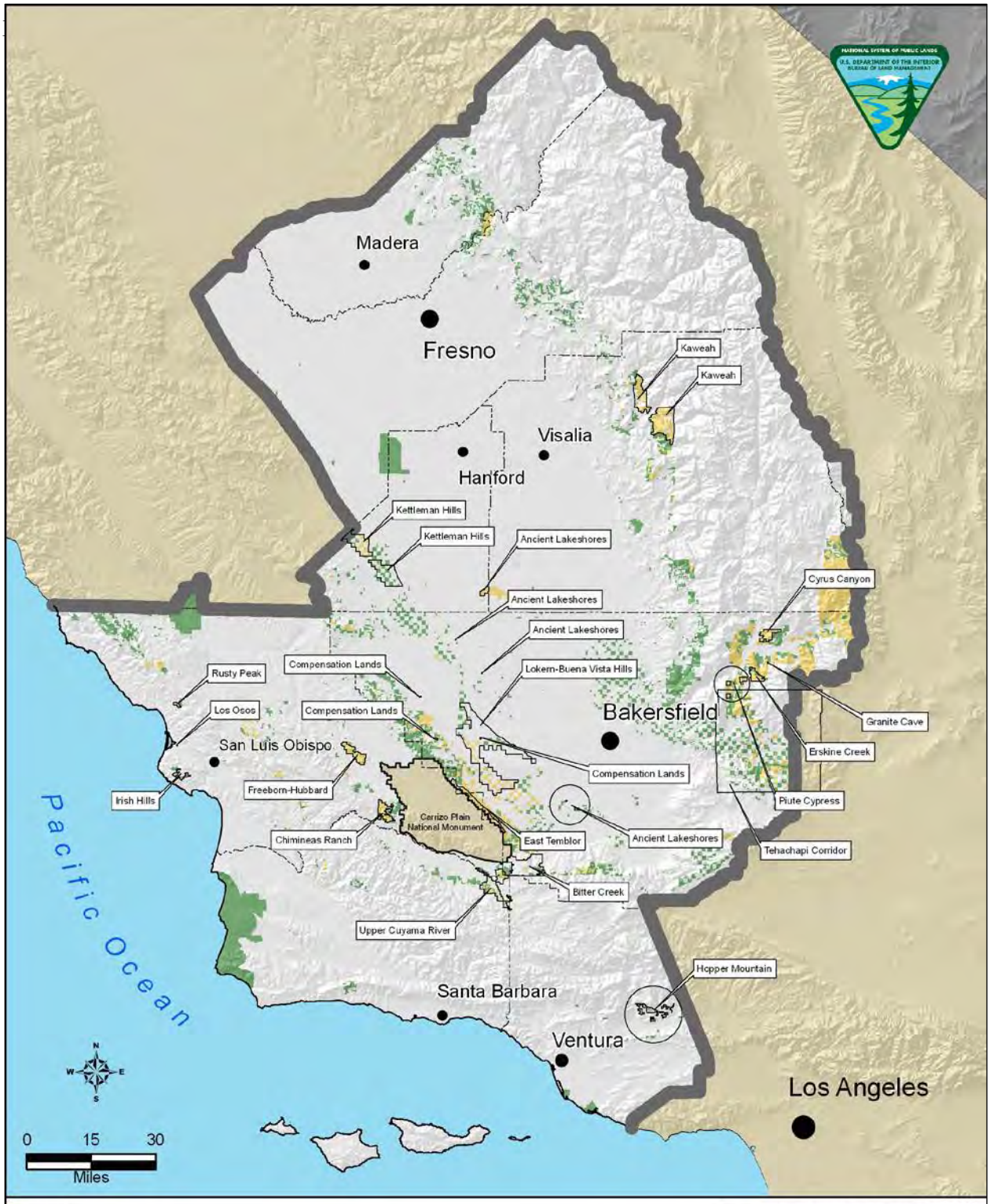
3.16.3.5 Freeborn Mountain-Hubbard Hill (6,986 acres)

This area was nominated through the public scoping process. After examination, the area has been determined not to meet the relevance and importance criteria for significant scenic values, natural systems or processes. While these mountain peaks are closer to the valley floor and are therefore prominent in the middle-ground view, they are similar to the adjacent Los Padres National Forest backdrop. The mixed chaparral-blue oak woodlands present are not unique or exemplary when compared to other plant communities of the same type and the area is not considered to be a unique or rare geologic feature. Of the values present none are determined to be vulnerable to adverse change.

3.16.3.6 Tehachapi Corridor (201,234 acres)

This area was nominated through the public scoping process. After examination, the area has been determined to meet the relevance criteria for wildlife resource and natural system because it contains rare plant and animal species, and habitat that are essential for maintaining species diversity and genetic linkages. The nomination suggests important corridor linkages between Coast, Transverse, and Sierra Nevada Ranges, and the Mojave Desert.

While the area contains rare species and important habitat, it does not meet the importance criteria as it does not have more than locally significant qualities when compared to other similar resources within the Tehachapi corridor region. The wildlife resource and natural system on public land is not particularly rare or vulnerable to adverse change as BLM can control uses that would decrease the contribution of public lands to a functioning corridor.



Legend

- Bakersfield Field Office
- County Boundary
- ACECs

Decision Area

- Public Lands
- Federal Mineral Estate

New or Expanded Proposed Areas of Critical Environmental Concern Bureau of Land Management Bakersfield Field Office

Map 3.27

3.17 OUTSTANDING NATURAL AREAS

The Decision Area contains one Outstanding Natural Area: the Piedras Blancas Historic Light Station designated by Congress under the Consolidated Natural Resources Act and signed by the President on May 8, 2008. With this designation, Congress also added the Piedras Blancas Light Station to the BLM's National Landscape Conservation System. Furthermore, the following eight congressional findings were made to guide future management of the ONA:

> (1) The publicly owned Piedras Blancas Light Station has nationally recognized historical structures that should be preserved for present and future generations.
>
> (2) The coastline adjacent to the Light Station is internationally recognized as having significant wildlife and marine habitat that provides critical information to research institutions throughout the world.
>
> (3) The Light Station tells an important story about California's coastal prehistory and history in the context of the surrounding region and communities.
>
> (4) The coastal area surrounding the Light Station was traditionally used by Indian people, including the Chumash and Salinan Indian tribes.
>
> (5) The Light Station is historically associated with the nearby world-famous Hearst Castle (Hearst San Simeon State Historical Monument), now administered by the State of California.
>
> (6) The Light Station represents a model partnership where future management can be successfully accomplished among the Federal Government, the State of California, San Luis Obispo County, local communities, and private groups.
>
> (7) Piedras Blancas Historic Light Station Outstanding Natural Area would make a significant addition to the National Landscape Conservation System administered by the Department of the Interior's Bureau of Land Management.
>
> (8) Statutory protection is needed for the Light Station and its surrounding Federal lands to ensure that it remains a part of our historic, cultural, and natural heritage and to be a source of inspiration for the people of the United States.

Piedras Blancas is on California's central coast, north of San Simeon. The area is named for white rock outcrops just off the end of the point. In the early 1870s, this location was chosen to fill the gap between the lighthouses at Point Conception and Point Sur. Prior to the construction of the lighthouse, Piedras Blancas had cultural significance to Native Americans; these values are present in the form of archaeological sites and the desire for access from Native American communities for traditional cultural and religious purposes.

The lighthouse and a two-story Victorian dwelling were completed in 1875. The original tower was 110 feet tall and housed a first-order Fresnel lens. A fog signal building and an additional keeper's dwelling were added in 1906. Employees of the US Lighthouse Service operated the facility until 1939, when the Coast Guard assumed control. New automated technology eventually replaced many of the functions of the lighthouse keepers. The Coast Guard relinquished control and management of the Piedras Blancas Light Station to the BLM on October 12, 2001.

The light station is currently managed in accordance with several activity level plans: the Piedras Blancas Historic Light Station Management Plan (BLM 2007), the Piedras Blancas Business Plan 2009-2013 (BLM 2008a), and the Piedras Blancas Interpretative Plan (BLM 2008b); however this RMP will serve as the land use plan for this area. Through these plans the Light Station historic structures are being restored, repurposed, and rebuilt with the goal of presenting the area in its early twentieth century appearance. All work is subject to SHPO concurrence through an existing Memorandum of Agreement (2007).

The interpretive program provides routine public access through guided tours of the Light Station. These tours currently run three times a week with annual attendance of approximately 5,000 visitors. In addition to the educational experiences provided by the historic setting, an accessible trail circumvents the site providing wildlife viewing opportunities.

The Light Station is adjacent to lands managed by California State Parks whom through an agreement provide access for administrative purposes and public tours.

3.18 BACK COUNTY BYWAYS

The BLM developed the Back County Byway Program to complement the National Scenic Byway Program established by the US Secretary of Transportation. Back County Byways highlight the spectacular nature of the western landscapes. These routes vary from narrow graded roads that are passable only during a few months of the year to two-lane paved highways with year-round access.

The Bakersfield FO maintains one Back County Byway, Chimney Peak (Map 2.15)[20]. The Byway passes through more than 50,000 acres of designated Wilderness in a transition zone between the Mojave Desert and the Sierra Nevada. The predominant pinyon-juniper woodlands provide habitat for black bear, bobcat, mountain lion, and mule deer. The remoteness and solitude found in the area lends a feeling of the old west and provides a glimpse into a past era. Along this Byway are numerous examples of the diverse resources found on public lands, including wildlife habitat, wilderness, cultural resources, and outdoor recreation opportunities. The Byway offers a unique opportunity to drive a seldom traveled route through the southern Sierra Nevada. Along the way visitors may enjoy scenic views, picnicking, camping, hiking, or simply traveling along the backcountry route.

[20] Segment shown as "Route to be restored" is the currently impassable section of the Byway.

The Byway provides the only access to both the Chimney Peak and Long Valley campgrounds. Other facilities along the route include the trail head and kiosk for the Lamont Trail, a kiosk and small turnout for parking at the Rockhouse Basin Trail, and identification/directional signs for the Byway itself. The Byway also provides access from California State Highway 178 to the Chimney Peak Fire Station, a seasonal BLM-operated facility, the Kennedy Meadows area, and the eastern side of the Kern Plateau.

The 38.5-mile Byway is classified as a Type II byway as it is mostly made up of narrow, slow speed, secondary roads and is recommended for high-clearance vehicles (i.e., vehicles with axles and transfer-cases above average distance from the ground). The Byway is considered to have a Middle Country administrative setting and a Back Country social setting as defined by the Natural Resource Recreation Setting Matrix (Appendix H).

The BLM maintains the road and associated facilities as part of its normal operations, however, parts of the road are washboard-like at times and some sections may be impassable in winter and early spring due to snow. In 2001 a section of the byway was washed out during inclement weather, which effectively closed the Long Valley Loop section. The washed out area is on a public easement on private property, which has prompted a review of the route and delayed repairs.

3.19 NATIONAL TRAILS

The National Trails System is a network of scenic, historic, and recreation trails created by the National Trails System Act of 1968. These trails provide outdoor recreation; promote the enjoyment, appreciation, and preservation of open space and historic resources.

The Decision Area contains the Pacific Crest National Scenic Trail (PCNST) and the Wu Ki' Oh National Recreation Trail.

The PCNST zigzags its way from Mexico to Canada through California, Oregon, and Washington. It boasts the greatest elevation changes of any of America's National Scenic Trails and passes through six of a possible seven of North America's ecozones, including high and low desert, old-growth forest, and arctic-alpine country.

Overall administration of the PCNST is the responsibility of the Secretary of Agriculture, through the U.S. Forest Service, and various planning documents have been developed for its management. A trail-wide restriction limits all use to non-motorized and non-mechanized uses.

Approximately 116 miles of the trail are within the Planning Area, entering near Tehachapi from the Ridgecrest FO and exiting north into the Bishop FO. Within the Planning Area, the trail crosses public lands managed by the BLM, the USFS, and NPS, including several co-managed wilderness areas. Of the total mileage, approximately 41-miles, the Owens Peak segment is within the Decision Area and managed by the Bakersfield FO. An agreement exists for portions of the trail occurring on public lands south of the Kiavah Wilderness to be managed by the Ridgecrest FO. Each year

volunteers from the Pacific Crest Trail Association, Backcountry Horsemen of America, and American Hiking Society augment the trail maintenance performed by the BLM.

The Wu Ki' Oh (formally the Squaw Leap) National Recreation Trail, within the San Joaquin River Gorge SRMA, provides opportunities for backpackers, equestrian use, and mechanized use (mountain bikes) on a 10.5-mile-long trail. This trail is managed to exclude motorized use.

Prior to 1984, a trail was proposed from Millerton Lake to the Sierra National Forest that would cross through the San Joaquin River Gorge SRMA, and require cooperation from the State, US Forest Service, Fresno County, and numerous private property owners. Since this initial proposal, the proposed San Joaquin River Trail corridor has been extended to travel from State Route 99 on the San Joaquin Valley floor to Devil's Postpile National Monument, making this the first trail to extend from the San Joaquin Valley across the Sierra Nevada Mountains. While this trail is not a part of the National Trails System, a desire for such a designation has been expressed.

3.20 WILD AND SCENIC RIVERS

Wild and Scenic Rivers (WSRs) are rivers or river sections designated by Congress under the authority of the Wild and Scenic Rivers Act of 1968 (Public Law 90-542, as amended; 16 United States Code [USC] 1271-1287) to protect outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values and to preserve the river or river section in its free-flowing condition. The WSRs Act purposefully strives to balance dam and other construction at appropriate sections of rivers with permanent protection for some of the country's most outstanding free-flowing rivers. To accomplish this, it prohibits federal support or approval for actions such as the construction of dams or other instream activities that would harm the river's free-flowing condition, water quality, or outstanding remarkable values (ORVs)[21].

Once designated the river or river segment is added to the National Wild and Scenic River System (NWSRS). The NWSRS consists of three types of rivers:

> **Recreation** – rivers or sections of rivers that are readily accessible by road or railroad, that might have some development along their shorelines, and that might have undergone some impoundments or diversion in the past.
>
> **Scenic** – rivers or sections of rivers free of impoundments with shorelines or watersheds still largely undeveloped, but accessible in places by roads.
>
> **Wild** – rivers or sections of rivers free of impoundments and generally inaccessible, except by trails, with essentially primitive watersheds or shorelines, and unpolluted waters.

Regardless of classification, rivers are administered with the goal of protecting and enhancing the ORVs that lead to their designation and maintaining their free flowing characteristics. Designation

[21] Also referred to as Outstanding Resource Values (http://www.rivers.gov).

does not, however, affect existing water rights or the existing jurisdiction of states and the federal government over waters as determined by established principles of law. Designation places no additional Federal authority over private lands within the corridor.

There are currently no Wild and Scenic Rivers within the Decision Area, however a number exist within the Planning Area including portions of the: Kern River, Kings River, Piru Creek, Sespe Creek and Sisquoc River.

3.20.1 WILD AND SCENIC RIVER EVALUATION PROCESS

In accordance with the Wild and Scenic Rivers Manual (8351), the BLM evaluates identified river segments for their eligibility and suitability for WSR designation through its RMP process. Once complete the ARMP and ROD allows the BLM to make recommendations, as appropriate, for legislative actions to accomplish WSR designations. Ultimately Congress decides whether to include a waterway segment in the NWSRS. In the interim, until the ROD is signed, protective management is afforded to all eligible river segments as necessary to ensure that the existing qualities upon which their eligibility is based are not degraded.

3.20.1.1 Eligibility

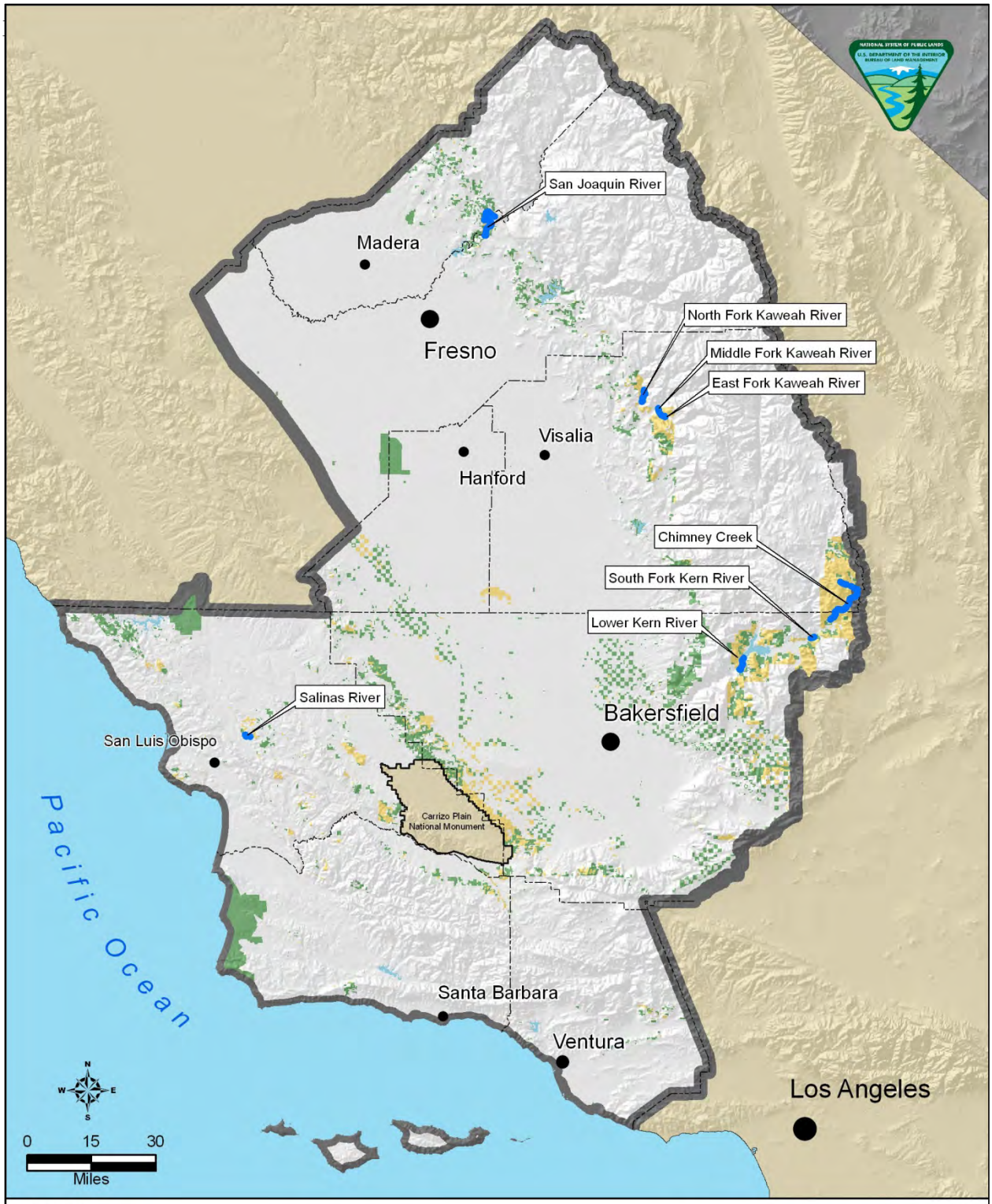
In order to be eligible for inclusion in the NWSRS, a river segment must be free flowing and contain at least one river-related ORV (BLM 1993). Eligible segments are preliminarily classified as wild, scenic, or recreational and then carried forward and studied in more detail to determine if they are suitable for inclusion in the NWSRS.

The Bakersfield FO office reviewed a total of seven waterways in the Caliente RMP (BLM, 1997). This inventory was updated to include an additional three river segments (within the area originally covered by the Hollister RMP). Of the total 10 rivers studied for eligibility, eight were determined to have free flowing characteristics, and possess at least one ORV (BLM 1997a, 1997b). Table 3.20-1 identifies these waterways, total miles of river; total miles studied; ORV(s) present; and tentative classification given to each.

3.20.1.2 Suitability

All waterways that met the eligibility criteria were reviewed to determine if they were also suitable for inclusion in the NWSRS (Map 3.28). The Wild and Scenic River Act and BLM Manual 8351 list a number of factors that should be considered when assessing the suitability of waterways for inclusion in the NWSRS including, status of land and mineral ownership along the river corridor, reasonably foreseeable use which would be enhanced, foreclosed or curtailed and ability to manage (either as a WSA or to protect ORVs in lieu of designation).

Of the eight eligible waterway segments, two were found to be suitable for designation; the North Fork of the Kaweah and the San Joaquin River (Segment 1).



Legend

- Bakersfield Field Office
- County Boundary
- Eligible Wild and Scenic Rivers
- Public Lands
- Federal Mineral Estate

Eligible Wild and Scenic Rivers
Bureau of Land Management
Bakersfield Field Office

Map 3.28

Table 3.20-1
Eligible Stream Segments in the Bakersfield FO

River or Creek	Planning Unit	Total River Length (miles)	Length Studied for Eligibility (miles)	Preliminary Classification	ORVs
Chimney Creek	Sierra	21.5	15.5	Wild/Recreational	Scenic, Wildlife, Botanical
East Fork of the Kaweah River	Sierra	21.8	2.3	Recreational[22]	Ecological, Visual
Middle Fork of the Kaweah River	Sierra	18.8	0.12	Recreational	Botanical, Visual
North Fork of the Kaweah River	Sierra	20.7	2.5	Scenic/Recreational	Wildlife, Cultural, Visual
Lower Kern River	Sierra	39.1	3.2	Recreational	Recreational, Wildlife, Historic
South Fork of the Kern River[23]	Sierra	85.0	0.7	Recreational	Ecological, Wildlife, Visual
Salinas River	Coast	75.6	0.8	Scenic	Botanical ,Ecological, Wildlife, Scenic
San Joaquin River (Segment 1)[24]	Sierra	186.9	5.4	Wild/Scenic	Scenic, Wildlife, Cultural

Sources: BLM 1997a, 1997b

[22] The preliminary classification for the East Fork of the Kaweah River was identified as scenic in the 1997 Caliente RMP (BLM 1997a). However, when the BLM interdisciplinary team reviewed this classification during this suitability study, it changed the preliminary classification to recreational due to the presence of a road that parallels most of the segment.

[23] In addition to those ORVs listed here for the South Fork of the Kern River, the Caliente Resource Management Plan Record of Decision also identified historic and prehistoric ORVs (BLM 1997b). When the BLM interdisciplinary team reviewed these ORVs during this suitability study, it was found that ranching, the historic ORV, is not outstandingly remarkable in the region. Additionally, the prehistoric sites are not on BLM land within the study area corridor.

[24] An additional segment of the San Joaquin River was found eligible for inclusion in the NWSRS, but it is on lands withdrawn by Reclamation to the BLM, in accordance with a 1968 agreement between Reclamation and the BLM. As such, any suitability determination for that stretch of river will be made in conjunction with or in whole by Reclamation. Segment 2 is not studied for suitability in this report.

Several factors caused eligible waterways to be recommended as not suitable for inclusion in the NWSRS. These factors included management conflicts and/or challenges, the effectiveness of current non-WSR management in protecting the identified ORVs, and determinations that the segments were not worthy of WSR designation. The examination of each eligible river, determination of suitability and rational are included in the Bakersfield FO Wild and Scenic River Report (BLM, 2010) (Appendix J).

Within this document, through the alternatives and identification of environmental consequences the resulting impact of suitability determinations is discussed, including where proposed overlapping management may eliminate the need for a WSR designation. The suitability determinations vary by alternative in accordance with BLM policy (H-8351) to ensure a full range of alternatives is considered in analysis, including all suitable and none suitable alternatives. The preferred alternative however, reflects the finding in the suitability report.

3.21 WILDERNESS AND WILDERNESS STUDY AREAS

The Wilderness Act of 1964 established a national system of lands to preserve a representative sample of ecosystems in a natural condition for the benefit of future generations. Until 1976, lands considered for and designated as wilderness were managed by the National Park Service, the USFS, and the USFWS. With the passage of FLPMA in 1976, Congress directed the BLM to inventory, study, and recommend those public lands under its administration that should be designated wilderness. The BLM's authority to conduct these wilderness studies, including the establishment of new Wilderness Study Areas (WSAs), expired in 1991, pursuant to Section 603 of FLPMA. The BLM has however, retained authority under Section 201 of FLPMA to inventory public lands for wilderness characteristics and to consider such information during land use planning (see *Lands with Wilderness Characteristics Section*).

The Wilderness Act broadly defines wilderness as areas possessing; natural, undeveloped and untrammeled characteristics, and providing opportunities for solitude or primitive and unconfined recreation, with or without the presence of unique or supplemental values. These character elements are described as follows.

> **Natural**: Where ecological and evolutionary systems are substantially free from the unintentional effects of modern civilization.
>
> **Undeveloped**: Where minimal evidence of modern human occupation or modification exists. It is "land retaining its primeval character and influence"; "without permanent improvements or human habitation"; "with the imprint of man's work substantially unnoticeable" and "where man himself is a visitor who does not remain."
>
> **Untrammeled**: Where unhindered and free from modern human control or manipulation. The Wilderness Act defines wilderness as "an area where the earth and its community of life are untrammeled by man," and is "affected primarily by the forces of nature."

Solitude or Primitive and Unconfined Recreation: Provides opportunities for people to experience natural sights and sounds, solitude, freedom, risk, and the physical and emotional challenges of self discovery and self reliance. It "has outstanding opportunities for solitude or a primitive and unconfined type of recreation" and "shall be administered…in such manner as will leave them unimpaired for future use and enjoyment as wilderness."

Unique or Supplemental: Areas "may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value." Though these values are not required, but where present they are part of that area's wilderness character, and must be protected as rigorously as any of the four required qualities. These values may or may not overlap with the other four qualities.

3.21.1 WILDERNESS

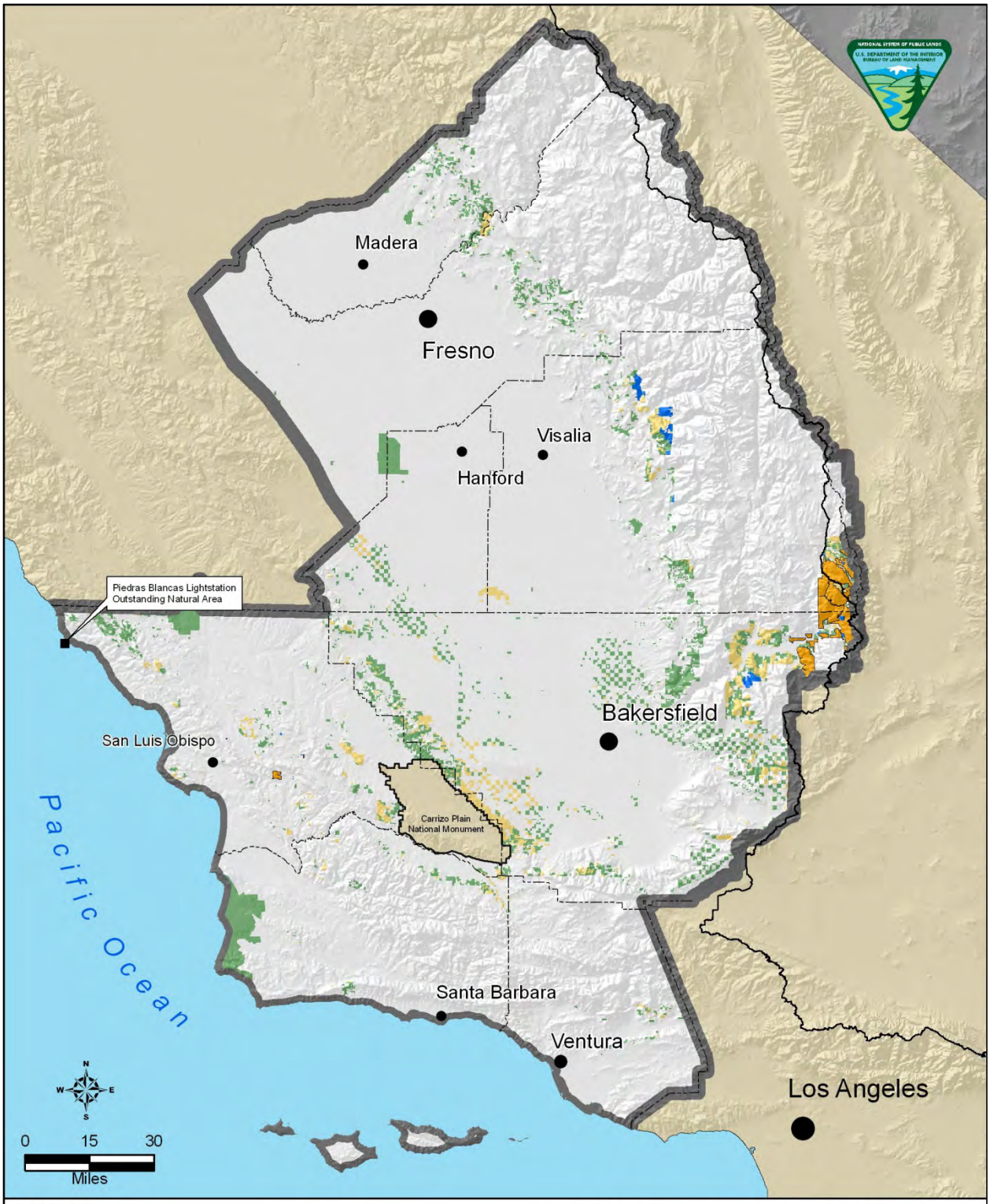
Wilderness areas are managed according to several internal policies, including BLM Manual 8560, Management of Designated Wilderness Areas (BLM 1983), and Handbook H-8560-1, Management of Designated Wilderness Areas (BLM 1988), in addition to 43 CFR 6300, Wilderness Management, and Principles for Wilderness Management in the California Desert (Desert Managers Group 1995).

The Decision Area contains all or portions of seven designated Wilderness areas (Table 3.21-1 and Map 3.29). Some of these designated areas not only extending outside the Decision Area, but also outside the Planning Area. These areas were designated by one of three legislative acts: Endangered American Wilderness Act of 1978, California Wilderness Act of 1984, or the California Desert Protection Act of 1994.

Table 3.21-1
Legislative Acts Designating Each Wilderness and its Date of Inception

Wilderness Name	Legislative Act	Public Law	Date
Chimney Peak	California Desert Protection Act	103-433-11	10/31/1994
Domeland Addition	California Desert Protection Act	103-433-19	10/31/1994
Kiavah	California Desert Protection Act	103-433-31	10/31/1994
Machesna Mountain	California Wilderness Act	98-425-38	9/28/1984
Owens Peak	California Desert Protection Act	103-433-45	10/31/1994
Sacatar Trail	California Desert Protection Act	103-433-56	10/31/1994
Santa Lucia	Endangered America Wilderness Act	95-237-3	2/24/1978

Where a Wilderness area extends outside the Decision area and is not exclusively managed by the Bakersfield FO, it falls either into the jurisdiction of the US Forest Service (USFS) or the BLM Ridgecrest FO. Table 3.21-2 identifies the Wilderness acres under each management jurisdiction.



Legend

- Bakersfield Field Office
- County Boundary
- Pacific Crest Trail
- Wilderness Study Areas
- Wilderness
- Public Lands
- Federal Mineral Estate

National Landscape Conservation System
Bureau of Land Management
Bakersfield Field Office

Map 3.29

Table 3.21-2
Wilderness Area Acreages Managed by each Entity

Wilderness Name	USFS Acres	BLM Ridgecrest Acres	BLM Bakersfield Acres	Total Wilderness Acres
Chimney Peak	0	0	13,134	13,134
Domeland Addition	90,755	0	39,326	130,081
Kiavah	50,728	18,282	22,651	91,661
Machesna Mountain	19,760	0	120	19,880
Owens Peak	0	47,112	26,655	73,767
Sacatar Trail	0	33,382	17,101	50,483
Santa Lucia	18,600	0	1,812	20,412
Total	179,843	98,776	120,799	399,418

Allowable uses in wilderness fall into two categories: those that conform to the intent of the Wilderness Act or those "grandfathered in" uses that do not conform. Allowable uses include non-mechanized activities, such as backpacking, hiking, and horseback riding, and may also include temporary nonconforming uses, such as the control of fire, insects, and disease. Those grandfathered in nonconforming uses can include access to private inholdings, and exploration and development of existing mining claims.

Although the Wilderness Act withdraw these areas from all forms of appropriation under the mining laws and from disposition under all laws pertaining to mineral leasing eight unpatented mining claims are recognized within Wilderness areas consistent with Section 3(d)(3) of the Wilderness Act. There are no leases within any of the wilderness areas.

Grazing activities and routes to access various features are present within the wilderness areas. These uses are consistent with exceptions to the prohibited activities provided in Sections 4(c), 4(d), and 5 of the Wilderness Act.

The five wilderness areas designated as part of the California Desert Protection Act are managed according to the Southern Sierra (West Side) Management Plan (BLM 1999b). There is current no wilderness plan addressing the remaining areas.

3.21.2 WILDERNESS STUDY AREAS

To fulfill the direction from Congress, after the passage of the FLPMA, the BLM established its wilderness review process. This process was carried out by first inventorying public lands to determine which lands had wilderness characteristics; this was done with extensive public involvement. Lands found to have wilderness characteristics were administratively designated as Wilderness Study Areas (WSAs). In California, a final wilderness inventory report was issued for BLM-administered lands outside of the California Desert Conservation Area (BLM 1979).

Upon identification as WSA analysis of their suitability for wilderness designation was completed. In California, this analysis included the preparation of a statewide wilderness EIS, the California Statewide Wilderness Study Report (BLM 1991). This report provided Congress recommendations as to which areas were suitable for designation as Wilderness. Although some time has passed since these recommendation were presented Congress has not yet acted on all of those recommendations; however the California Desert Protection Act of 1994 designated additional Wilderness from these WSA recommendations (Table 3.21-1) and released some from WSA status.

The Decision Area contains approximately 21,000 acres within 11 WSAs identified through the 1979 final wilderness inventory report (Map 3.29). Determinations of suitability of all or portions of the identified acreage were made in the 1991 Wilderness Study Report on all but three areas (Black Mountain, Moses and Scodie WSAs). Table 3.21-3 identifies those acreages found unsuitable.

All WSAs are being managed so not to impair the suitability of the area for preservation as designated Wilderness and prevent unnecessary or undue degradation, in accordance with the BLM Interim Management Policy for Lands Under Wilderness Review BLM Handbook H-8550-1 [BLM 1995]), and will continue to be managed in that manner until Congress either designates them as Wilderness or releases them for other uses.

Table 3.21-3
Wilderness Study Area Acreages Found Unsuitable

Wilderness Study Area	Total Acres	Unsuitable Acres
Black Mountain	150	Not studied
Garcia Mountain	80	80
Machesna	70	70
Milk Ranch/Case Mountain	8,970	8,970
Moses	558	Not studied
Owens Peak	310	310
Piute Cypress [ISA]	5,213	3,453[25]
Rockhouse	130	130
Sacatar Meadows	140	140
Scodie	420	Not studied
Sheep Ridge	5,102	5,102
Total	**21,143**	**18,000**

As with designated Wilderness, existing rights (i.e., those conducted or established prior to October 21, 1976) are grandfathered in, and allowed to occur provided they do not unnecessarily or unduly degrade the lands. These uses include grazing, mining, and mineral leasing. The Federal Onshore Oil and Gas Leasing Reform Act of 1987 closed lands within WSAs to fluid mineral (oil, gas, and geothermal) leasing (30 USC 226-3[a]2). Consistent with Sections 0.06D and 0.06E of BLM Manual 8550, Interim Management Policy and Guidelines for Lands under Wilderness Review (BLM 1995), six unpatented mining claims are recognized.

Some of the many activities that are allowed in WSAs include hunting, fishing, travel with motorized vehicles on inventoried ways (unless otherwise restricted through land use planning), camping, hiking, and horseback riding.

A brief description of each WSA is provided in Table 3.21-4.

[25] Remaining acreage was determined to be suitable.

Table 3.21-4
Description of WSAs

Name	Natural Values	Current Uses	Management Prescriptions
Black Mountain	• Exposed basalt rises approximately 1,900 feet from the desert floor. • Fine-grained Holocene dune sand at southeastern corner of the WSA is a sharp contrast to the black basalt of Black Mountain. • Elevations range from 2,100 feet to 4,000 feet. • State-threatened Mohave ground squirrel and the federally and state-threatened desert tortoise are present.	• Limited public access	• As outlined in the BLM Interim Management Policy for Lands Under Wilderness Review
Garcia Mountain	• Stands of blue oak and live oak.	• Limited public access	• As outlined in the BLM Interim Management Policy for Lands Under Wilderness Review
Machesna	• Steep terrain and thick vegetation.	• Limited public access	• On boundary of Machesna Mountain Wilderness • Managed to be compatible with adjoining Wilderness
Milk Ranch/Case Mountain	• Varied landscape, from rocky, rounded steep slopes to low rounded hills and steep forested slopes cut by gorges. • Numerous intermittent creeks transect the area. • Giant sequoia in the Case Mountain parcel. • Area contains critical winter range for the Mineral King deer herd.	• Hiking • Hunting	• Partially within the Case Mountain ACEC • Partially within the North Fork SRMA • No motorized use • Mechanized use on existing trails • ACEC areas day use only • SRMA areas closed to public access
Moses	• Moderate to steep slopes. • Dense growth of chaparral and oak woodland. • Intermittent creek areas.	• Limited public access	• As outlined in the BLM Interim Management Policy for Lands Under Wilderness Review

Table 3.21-4
Description of WSAs

Name	Natural Values	Current Uses	Management Prescriptions
Owens Peak	• Unique ecosystem formed by the convergence of five vegetation types. • Outstanding examples of Joshua tree woodland, big sage/rabbitbrush, and mixed conifer. • Portion of the PCNST traverses the unit. • Eleven candidate plant species occur in the unit.	• Hiking • Hunting • Access to PCNST	• Within the Chimney Peak SRMA • On boundary of Owens Peak Wilderness • Managed to be compatible with adjoining Wilderness
Piute Cypress ISA	• Dense grove of dwarf piute cypress. • Three candidate threatened and endangered species occur in the area. • Contains an example of Sierran forest/juniper-pinyon woodland ecosystem.	• Hiking • Hunting • OHV trespass	• As outlined in the BLM Interim Management Policy for Lands Under Wilderness Review
Rockhouse	• Contains an example of Sierran forest/juniper-pinyon woodland ecosystem.	• Hiking • Hunting	• Within the Chimney Peak SRMA • On boundary of Domeland Wilderness • Managed to be compatible with adjoining Wilderness
Sacatar Meadows	• Slopes reach elevations over 8,000 feet. • Contains one known population, and potential habitat, for Nine Mile Canyon phacelia (*Phacelia novenmillensis*), a BLM sensitive plant species. • A migration route for the Monache deer herd crosses through the northern and western portions of the area.	• Hiking • Hunting	• Within the Chimney Peak SRMA • On boundary of Sacatar Trail Wilderness • Managed to be compatible with adjoining Wilderness

Table 3.21-4
Description of WSAs

Name	Natural Values	Current Uses	Management Prescriptions
Scodie	• Mountain foothills, with steep rocky terrain with a few interior drainages and canyons. • Elevations range to 5,800 feet. • Pinyon and scatter gray pine with sagebrush understory in the north, Joshua tree and mixed desert shrub in the south.	• Hiking • Hunting • OHV trespass	• On boundary of Kiavah Wilderness • Managed to be compatible with adjoining Wilderness
Sheep Ridge	• A rugged steep ridge dominates the area. • Small canyons are found along the flanks of the ridge. • A small creek runs across the middle of the unit. • Contains an example of Sierran forest/California oak woods ecosystem.	• Limited access due to closure of nearby public lands	• As outlined in the BLM Interim Management Policy for Lands Under Wilderness Review

SOCIAL AND ECONOMIC CONSIDERATIONS

3.22 SOCIAL AND ECONOMIC RESOURCES

Certain defining features of every area influence and shape the nature of local economic and social activity. Among these are the local populations, the presence of or proximity to large cities or regional population centers, types of longstanding industries such as agriculture, oil and gas, predominant land and water features, and unique area amenities. The BLM operates as a steward of many of these area resources and opportunities and thus plays a role in the community. This discussion gives further insight on the character and extent of these community connections.

The economic analysis focuses on changes in demand for goods and services from public lands within the Planning Area. These lands contribute a wide range of economic values to people. Market goods such as minerals, livestock, and recreation generate employment and income as well as payments to local communities and some revenue for the federal treasury. Non-market goods such as unique ecosystems and habitats generate value everyone reaps but do not necessarily pay for. Other goods such as outdoor recreation and scenery are valued by the people who use them but only a portion of this value is represented in market purchases.

While a value for ecological or recreational goods may exist, they are difficult to quantify. Direction provided in the Land Use Planning Handbook (Appendix D; pages 6, 7 and 10) suggests the use of "benefit transfer" to evaluate the effects of these non-market values. The benefit transfer method is used to estimate economic values for ecosystem services by transferring available information from studies already completed in another location and/or context. For example, values for recreational fishing in a particular state may be estimated by applying measures of recreational fishing values from a study conducted in another state.

In order to accurately portray the relationship of current BLM management and the community, the social and economic geographic scope of analysis must be defined. The social and economic effects from changes on public lands feasibly extend beyond the immediate vicinity of the action. In addition, the role of public lands within the larger region must be addressed while not masking change within smaller counties and communities in the Planning Area. A multidimensional approach is thus appropriate examining both the role of public lands at a broad regional scale and smaller county level scale.

At the broad scale, all Planning Area counties combined are used to examine social and economic conditions, trends and contributions from BLM. Analysis at only this scale would mask social and economic relationships with BLM in smaller communities within the Planning Area. Consequently social and economic conditions and trends are also presented for individual counties within the Planning Area.

3.22.1 POPULATION AND DEMOGRAPHIC CHANGE

Population change in the eight-county Planning Area increased by 77 percent (1.7 million persons) between 1980 and 2010 outpacing the state which increased by 57 percent (13.6 million persons). Population change specific to individual counties for the period between 1980 and 2010 is displayed in Table 3.22-1 below. The largest absolute increase occurred in Kern County (436,542 persons) while Madera County increased the most in percentage terms (139 percent). Kings and Santa Barbara counties saw the smallest population increases in terms of absolute (79,244) and percent change (42 percent), respectively (U.S. Department of Commerce 2011).

Table 3.22-1
Population Change for Counties within the Planning Area

Location	1980	1990	2000	2010	1980-2010 Percent Change
Fresno County	514,229	667,490	799,407	930,450	81%
Kern County	403,089	543,477	661,645	839,631	108%
Kings County	73,738	101,469	129,461	152,982	107%
Madera County	63,116	88,090	123,109	150,865	139%
San Luis Obispo County	155,435	217,162	246,681	269,637	73%
Santa Barbara County	298,694	369,608	399,347	423,895	42%
Tulare County	245,738	311,921	368,021	442,179	80%
Ventura County	529,174	669,016	753,197	823,318	56%
Planning Area Total	2,283,213	2,968,233	3,480,868	4,032,957	77%
State of California	23,667,565	29,760,021	33,871,648	37,253,956	57%

The population in the Planning Area has slightly aged since 1990 as the median age in 2000 was up from 1990 in all Planning Area counties except Tulare, where the median age stayed the same. Between 1990 and 2000 age groups between 35 and 64, which include the baby boomer population, showed increases in their shares' of total population. The age group that increased the most was 45 to 49, which rose by 77,073 persons, while those aged 25 to 29 showed the largest decreases which decreased by 22,438 persons (U.S. Department of Commerce 2000).

The 2011 census indicates that many of the Planning Area counties contained shares of racial and ethnic groups that exceeded shares in the state (Table 3.22-2 below)[26]. Within the Planning Area all counties contained at least one minority group at higher concentrations than their respective shares statewide, except San Luis Obispo County. Seven counties within the Planning Area contained larger shares of those identifying themselves as Hispanic than the state (see Table 3.22-2 below). Tulare County had the largest percent where 61 percent of the population was Hispanic while 21 percent of San Luis Obispo County's population was Hispanic (U.S. Department of Commerce 2011b).

[26] Race and ethnicity are separated since Hispanics can be of any race.

Table 3.22-2
Racial and Hispanic Composition of 2010 Population

Location	White Alone	American Indian and Alaska Native Alone	Black or African American Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Two or More Races	Hispanic Origin
Fresno County	55.4%	5.3%	1.7%	9.6%	0.2%	23.3%	4.5%	50.3%
Kern County	59.5%	5.8%	1.5%	4.2%	0.1%	24.3%	4.5%	49.2%
Kings County	54.3%	7.2%	1.7%	3.7%	0.2%	28.1%	4.9%	50.9%
Madera County	62.6%	3.7%	2.7%	1.9%	0.1%	24.8%	4.2%	53.7%
San Luis Obispo County	82.6%	2.1%	0.9%	3.2%	0.1%	7.3%	3.8%	20.8%
Santa Barbara County	69.6%	2.0%	1.3%	4.9%	0.2%	17.4%	4.6%	42.9%
Tulare County	60.1%	1.6%	1.6%	3.4%	0.1%	29.0%	4.2%	60.6%
Ventura County	68.7%	1.8%	1.0%	6.7%	0.2%	17.0%	4.5%	40.3%
Planning Area Total	63.0%	3.8%	1.4%	5.8%	0.2%	21.4%	4.4%	46.5%
State of California	57.6%	6.2%	1.0%	13.0%	0.4%	17.0%	4.9%	37.6%

3.22.1.1 Economic Specialization and Employment

Employment within the Planning Area is distributed amongst industry sectors as displayed below in Figure 3.22-1. Employment and income are reported by economic sector, which are a set of local businesses by industry, grouped together according to similarities in the goods and services they offer. Economic sectors are reported according to 2-digit North American Industry Classification System codes (NAICS). This is a system developed by the United States government for grouping establishments into industries based on the primary activity with which they are engaged. Assessing employment and income by sector helps identify industries important in the Planning Area, and those which could be impacted under the alternatives. The Government, Agriculture, and Retail Trade sectors were the largest components of employment in the Planning Area in 2009 (IMPLAN 2009).

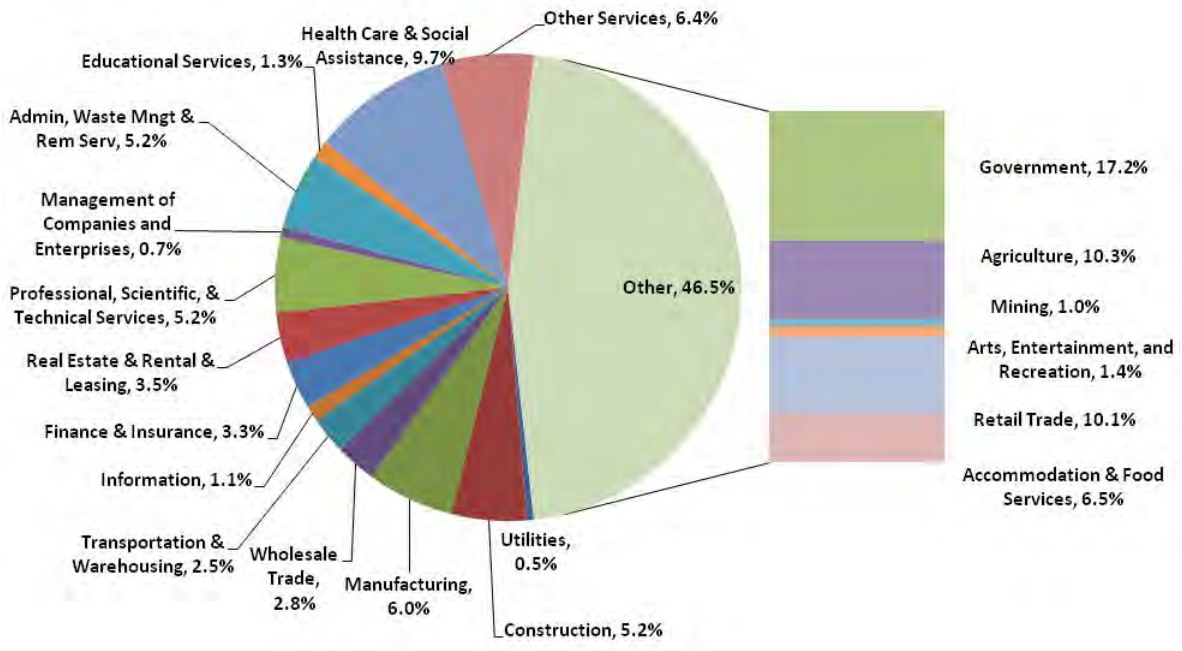


Figure 3.22-1 – Planning Area Industry Employment Distribution, 2009 (IMPLAN 2009)

Communities that are specialized with respect to employment were identified here using the ratio of the percent employment in each industry in the Planning Area to an average percent of employment in that industry for the state of California. For a given industry, when the percent employment in the Planning Area is greater than in the state of California, local employment specialization exists in that industry (U.S Department of Agriculture 1998). Using this criterion applied with 2009 data, the Planning Area can be characterized as most specialized with respect to employment in the Agriculture, Mining (which includes oil and gas), and Utilities sectors (Figure 3.22-2).

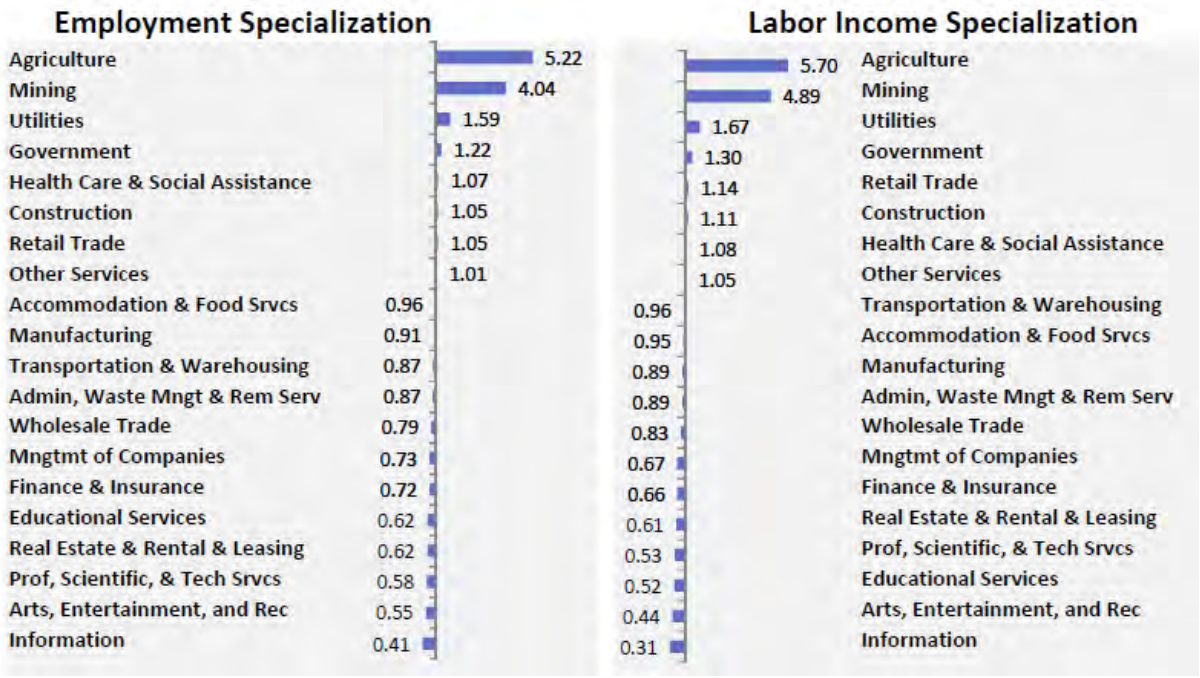


Figure 3.22-2 – Employment and Income Specialization in the Planning Area Relative to the State of California (IMPLAN 2009)

From 1970 to 2000, total employment in the Planning Area increased by 185 percent (from 352,906 to 1,005,432 jobs classified as full and part-time employment). This growth was largely due to increases in service related sectors; between 1970 and 2000 employment in Service related sectors (includes Retail Trade, Finance, Insurance & Real Estate, and the combined Services sector) increased by 199 percent. In addition, the share of total employment attributable to this sector increased by 9.3 percent; from 40.0 to 49.3 percent (Figure 3.22-3). Thus, the Service related sectors have been an important and increasing part of area employment (U.S. Department of Commerce 2010) [27].

[27] These shares are based on numbers which are not directly comparable to the IMPLAN numbers in Figure 3.22-3 since IMPLAN data include farm and proprietor employment in addition to wage and salary employment. Similarly the IMPLAN data also includes estimates for non-disclosures that similarly include farm and proprietor employment in addition to wage and salary employment

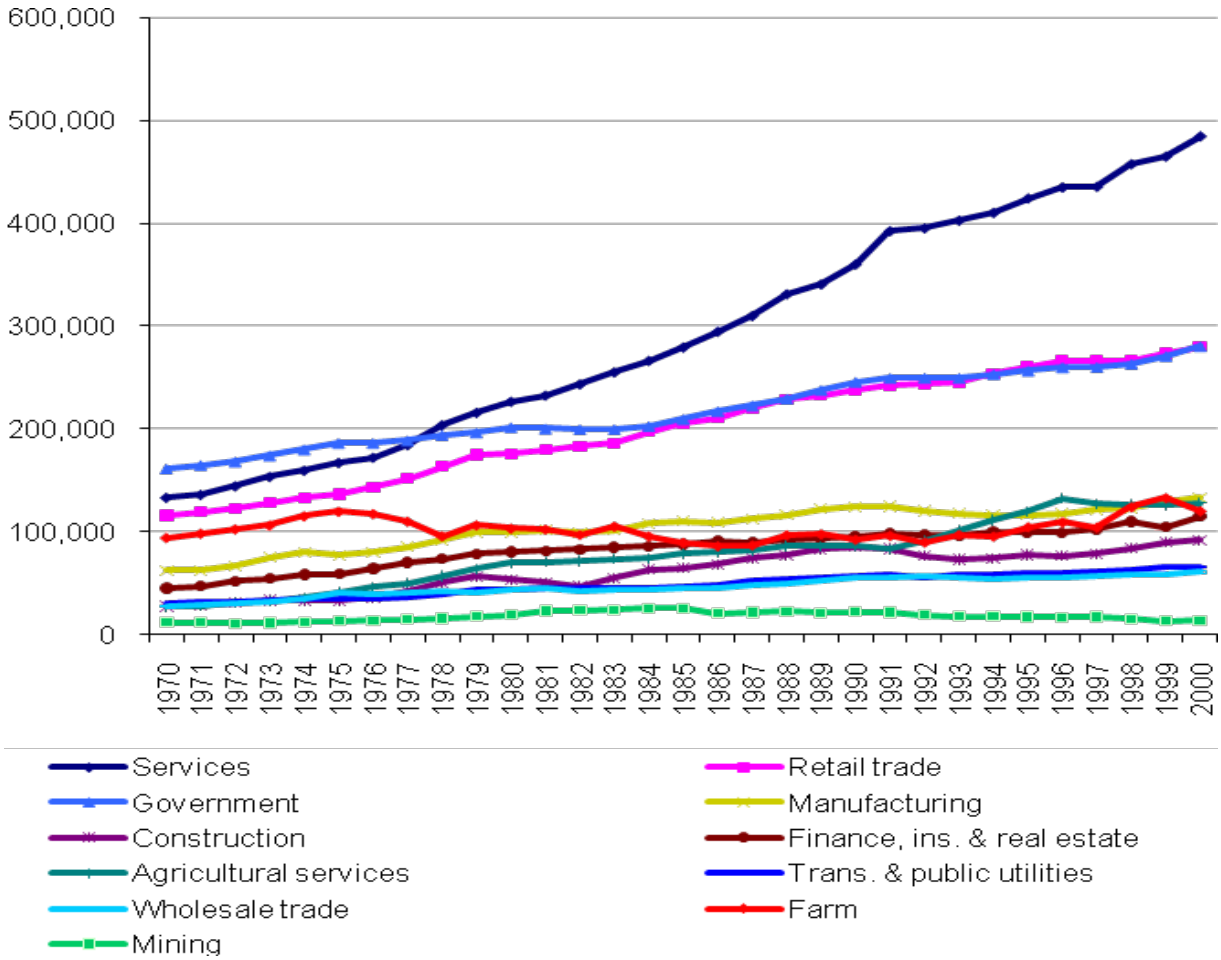


Figure 3.22-3 – Employment History of the Planning Area (U.S. Department of Commerce 2000; EPS 2009)

Employment changes in the Farm (includes livestock grazing), Mining, and Manufacturing sectors translated into smaller portions of total employment in 2000, decreasing by 6.0, 0.8 and 1.0 percent, respectively (from12.8 to 6.7, 1.6 to 0.8 and 8.4 to 7.4 percent, respectively). Between 2001 and 2008 Farm and Manufacturing sectors percent of total employment continued to decrease by 1 percent while the Mining sector (which includes oil and gas) increased by 0.2 percent. These natural resource related sectors have provided a small and sometimes decreasing portion of total area employment while the Service related sector has maintained a steady increase and continued to increase between 2001 and 2008 (its share of total employment increased by 2.6 percent) (U.S. Department of Commerce 2010).

3.22.1.2 Economic Well-Being and Poverty

As noted above, the Service related sectors increased in their share of total employment while the Farm, Mining, and Manufacturing sectors experienced decreases between 1970 and 2000. The

private sectors examined can be lumped into Goods- Producing sectors (Natural Resources, Construction, and Manufacturing) and Service-Providing sectors (Trade, Information, Finance, Professional Business Services, Education, Health, etc.). In general the Service-Providing sectors do not pay as much as the Goods- Producing sectors, thus increases in the percent of total employment attributable to these sectors could decrease area economic well-being. Within the Planning Area the Service-Providing and Goods-Producing sectors paid average annual wages of $37,724 and $38,779, respectively in 2009 (U.S. Department of Labor 2010). Thus, increases in employment in sectors associated with lower wages alongside decreases in sectors associated with higher wages could indicate a decrease in area economic well-being. However, we cannot say that decreases in economic well-being have resulted from increases in service-related sector employment, since higher labor force participation in the Service sector between 1970 and 2010, by groups such as women and minorities, could increase the overall importance of certain sectors over others. In addition, people might move to the area to take a service sector job but exchange the lower wage they may receive for the unique natural and cultural amenities. In this manner some may benefit from a "non-market benefit" not provided by their place of employment but by the benefits they gain from living in the area.

Total personal income (TPI) and per capita personal income (PCPI) are useful measures of economic well-being. From 1970 to 2008, annual TPI in the Planning Area increased by $100 billion to $141 billion, and annual PCPI increased from $22,776 to $36,321 (all measures adjusted for inflation to 2010 dollars) (U.S. Department of Commerce 2010b).

While PCPI is a useful measure of economic well-being it should be examined alongside changes in real earnings per job. Since PCPI includes income from 401(k) plans as well as other non-labor income sources like transfer payments, dividends, and rent, it is possible for per capita income to rise, even if the average wage per job declines over time. While PCPI rose between 1970 and 2008, average earnings per job rose from $41,581 to $48,098 (values adjusted for inflation to 2010 dollars) indicating a possible increase in area economic well-being (U.S. Department of Commerce 2010b). While data indicate increases in area economic well-being over the period discussed, data over the period covering the recent nation economic downturn is not yet available thus local changes in economic well-being have likely occurred that are not reflected in this depiction. As indicated in recent unemployment data below, decreases in labor force participation signal changes not reflected in data presented up to this point.

Between 1990 and 2009, the annual unemployment rate within the Planning Area (all counties combined) ranged from a low of 6.3 in 2006 to a high of 12.9 in 1993 (Figure 3.22-4). In 2009, Tulare County, CA had the highest unemployment rate (15.3 percent), and Santa Barbara County, CA had the lowest (8.4 percent) while the Planning Area (all counties combined) had an unemployment rate of 12.6 percent (U.S. Department of Labor 2010b). If unemployment remains high, new jobs are likely to be filled by local area residents; however, if unemployment is persistently low, new jobs are more likely to be filled by new area residents.

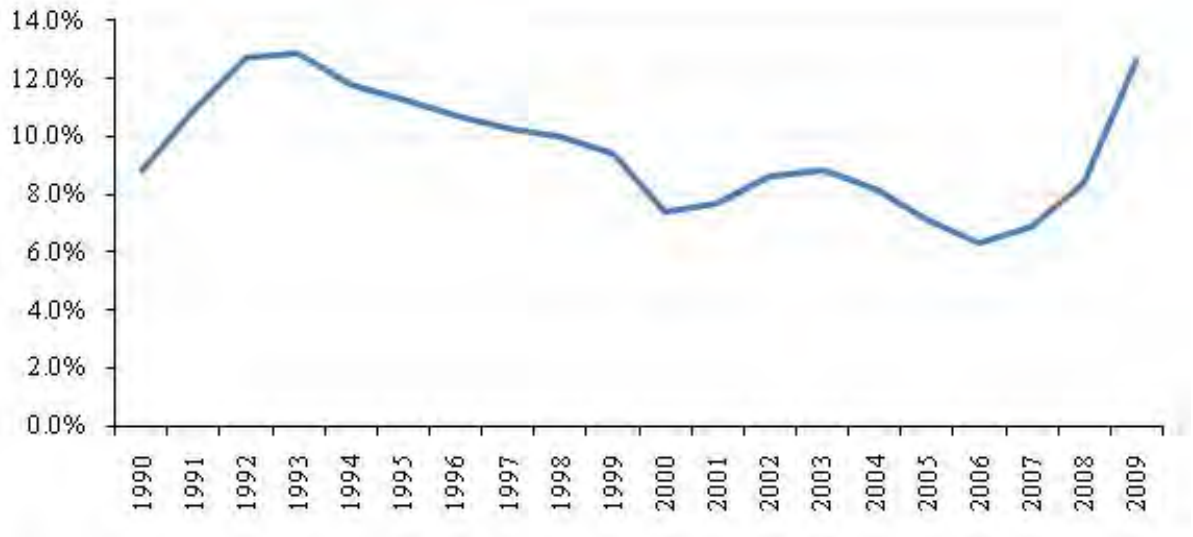


Figure 3.22-4 – Average Annual Unemployment Rates of the Planning Area (All Counties Combined)

Changes in the number of people living in poverty between 2000 and 2009 remained within the upper and lower bound of the 90 percent confidence limits, for the state of California and all individual counties, except San Luis Obispo and Santa Barbara Counties. This suggests levels of those living in poverty remained stable in these counties while in San Luis Obispo and Santa Barbara counties shares increased by 2.5 and 2.6 percent, respectively. Regardless of these changes, Table 3.22-3 shows that all counties within the Planning Area, except San Luis Obispo and Ventura counties, contained greater shares of those living in poverty than the state in 2009 (U.S. Department of Commerce 2011b).

Table 3.22-3
Persons Living Below Poverty Level and Change

	Persons Living in Poverty 2000	Share of 2000 Population	Persons Living in Poverty 2009	Share of 2009 Population
Fresno County	164,786	20.6%	192,638	21.5%
Kern County	119,920	18.6%	170,614	22.2%
Kings County	22,992	20.5%	24,546	19.5%
Madera County	24,688	20.9%	28,710	20.6%
San Luis Obispo County	25,292	10.7%	33,198	13.2%
Santa Barbara County	48,031	12.4%	58,700	15.0%
Tulare County	85,424	23.2%	97,542	23.0%
Ventura County	67,425	8.9%	83,323	10.5%
Planning Area Total	558,558	16.0%	689,271	17.6%
State of California	4,304,909	12.7%	5,132,640	14.2%

3.22.1.3 Components of Personal Income

Further examining trends within personal income provides insight to the area economy and its connection to the lands administered by the BLM. There are three major sources of personal income: (1) labor earnings or income from the workplace, (2) investment income, or income received by individuals in the form of rent, dividends, or interest earnings, and (3) transfer payment income or income received as Social Security, retirement and disability income or Medicare and Medicaid payments.

Labor earnings were the largest source of income in the Planning Area accounting for 67 percent of all income in 2009. The Government and Health Care & Social Assistance sectors were the largest components of labor income in 2009 in the Planning Area (Figure 3.22-5 below). It should be noted that the contributions from the BLM represent only a portion of the economic activity reflected in industry sectors seen in Figure 3.22-5.

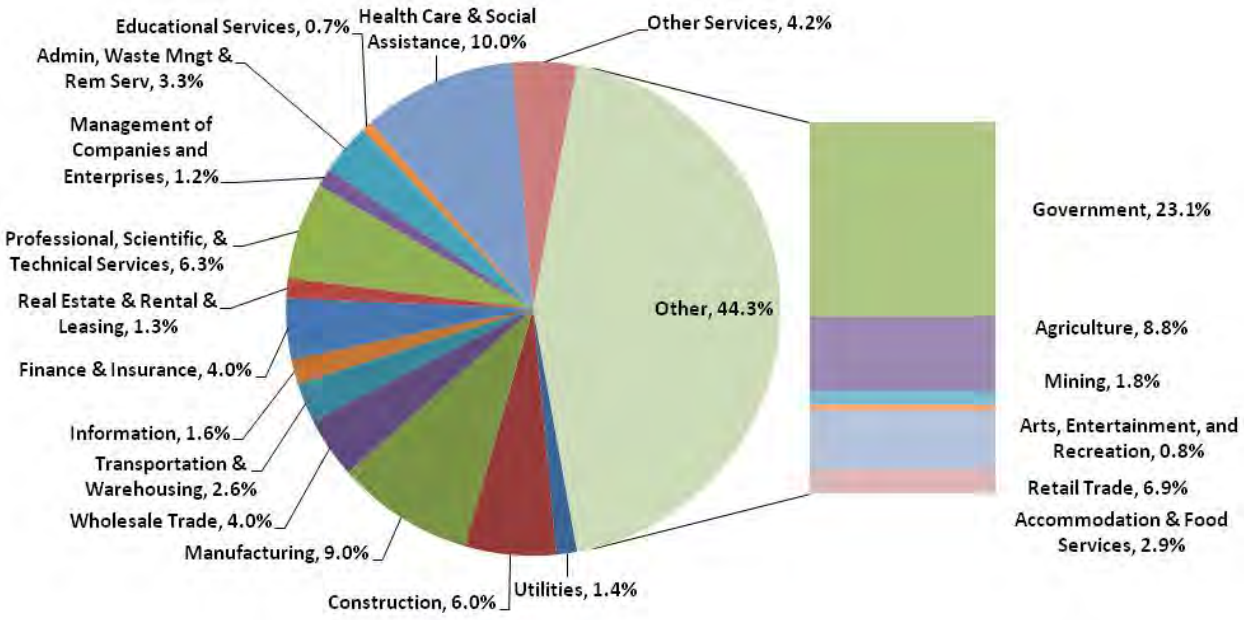


Figure 3.22-5 – Planning Area Labor Income Distribution, 2009 (IMPLAN, 2009)

Labor earning's share of TPI has decreased from 1970 to 2008 (from 74 to 65 percent), and the share of non-labor income has risen (from 26 to 35 percent). As a share of TPI, investment income and transfer payments rose from 15 to 19 and 11 to 16 percent, respectively, over this 38-year time period. The increase in transfer payments are not entirely due to increases in welfare or unemployment related payments. Data shows the share of transfer payments from income maintenance decreased from 3.6 to 3.3 percent. In 2008, the largest component of transfer payments were the age related payments (classified as Old Age, Survivors, and Disability Insurance and Medicare Benefits) accounting for 32 percent of total transfer payments (U.S. Department of Commerce 2010c).

These patterns reflect the importance of the aging population noted above, who are more likely to have investment earnings than younger adults. As the population of the area continues to age, the share of income from these non-labor sources should continue to rise as long as residents continue to stay in the area after retirement or new retirees move in. Rural county population change, the development of rural recreation and retirement-destination areas are all related to natural amenities (Knapp and Graves 1989, Clark and Hunter 1992; Treyz et al. 1993, Mueser and Graves 1995, McGranahan 1999, Lewis et al. 2002). Many of the natural amenities in the area are managed by the BLM and thus, indirectly contribute to area labor and non-labor income.

3.22.2 CONTRIBUTIONS TO THE AREA FROM BLM MANAGEMENT

BLM administered lands in the Planning Area contribute to the livelihoods of area residents through traditional and cultural uses as well as through market-based economic production and income generation. Public lands provide products of value to households at no or low cost such as recreation opportunities and livestock grazing. Additional products with traditional cultural value may include fish, game, plants, berries, and seeds. Use of these products is often part of traditions that sustain local culture.

Contributions to the area economy through market-based production can be measured using the IMPLAN input-output model. Input-output models describe commodity flows from producers to intermediate and final consumers. The total industry purchases are equal to the value of the commodities produced. Industries producing goods and services for final demand purchase goods and services from other producers. These other producers, in turn, purchase goods and services. This buying of goods and services continues until leakages from the region stop the cycle. The resulting sets of multipliers describe the change of output for regional industries caused by a change in final demand in an industry. The IMPLAN database describes the economy in 440 sectors using federal data from 2009[28]. These sectors are further aggregated (see Figure 3.22-1 above) to better identify areas relevant to BLM management activities.

Using the most recent data available, IMPLAN response coefficients[29] were applied to BLM outputs and expenditures to estimate the economic contribution of the BLM within the Planning Area. While the discussion above examines the current situation, this analysis examines the linkages and interdependencies among businesses, consumers, and the Planning Area resources on which some area economic activity depends. IMPLAN allows a more complete examination of these linkages.

IMPLAN not only examines the direct contributions from the Planning Area but also indirect and induced contributions. Indirect employment and labor income contributions occur when a sector purchases supplies and services from other industries in order to produce their product. Induced contributions are the employment and labor income generated as a result of spending new household income generated by direct and indirect employment. The employment estimated is

[28] IMPLAN data is derived from a variety of sources included the Bureau of Economic Analysis, Regional Economic Information System, Bureau of Labor Statistics, U.S. Census, etc.
[29] Rates of change in employment and labor income as final demand changes.

defined as any part-time, seasonal, or full-time job. In Table 3.22-4 and Table 3.22-8, direct, indirect and induced contributions are included in the estimated BLM contributions.

Table 3.22-4
Estimated Annual Employment and Labor Income Contributions

Resource Program	Jobs (Full and Part-time)	Labor Income (Thousands 2011 $)
Recreation[30]	249	$9,457
Livestock Grazing	3	$83
Solid Minerals	0.7	$7
Fluid Minerals	2,871	$179,539
Externally Funded Projects	15	$458
Payments to Counties (min)	518	$27,253
Payments to Counties (max)	803	$42,267
BLM Expenditures	177	$9,158
Total BLM Management (low)[31]	3,832	$225,955
Total BLM Management (high)	4,117	$240,970

Source: IMPLAN 2009

3.22.2.1 Tourism and Recreation

BLM land within the Planning Area provides a variety of recreational opportunities. Field office staff estimate that there were 355,866 recreational visits to the Planning Area on an average annual basis between October 2007 and September 2010. On their way to the Planning Area, and once they arrive, these visitors spend money on goods and services they would spend elsewhere if these opportunities did not exist. In this manner the opportunities on BLM contribute to the local economy by attracting these visitors.

Analyses of expenditures reported by national forest visitors show the primary factor determining the amount spent by a visitor was the type of trip taken and not the specific activity or forest visited (Stynes and White 2005). Since expenditure information for the type of trip taken on BLM is not yet available, National Visitor Use Monitoring (NVUM) data from the Sequoia National Forest will serves as a proxy. These six trip type segments are defined below:

- Visitors who reside greater than 30 miles from visited BLM:
    1. Non-local residents on day trips
    2. Non-local residents staying overnight on BLM
    3. Non-local residents staying overnight off BLM
- Visitors who live within 30 miles of the visited BLM:
    4. Local residents on day trips
    5. Local residents staying overnight on BLM

[30] Expenditures by local residents for recreation on BLM do not introduce "new" money into the economy. If local residents could not recreate on BLM, they would likely find other forms of recreation in the area and continue to spend their recreation dollars in the local economy. Therefore, these portions of employment (and labor income below) are not necessarily dependent on the existence of the opportunities provided by BLM.
[31] Totals may not add due to rounding.

6. Local residents staying overnight off BLM

A seventh category of trip types was not included, non-primary visits, since we are only interested in visitors who's primary activities are on public lands. The visitation proportions for the Sequoia National Forests (Stynes and White 2005) were used to characterize recreation use for the visitor segments above within the Decision Area. This process indicates approximately 25 percent of all visits to the public lands were wildlife related and the largest trip-type segment was non-wildlife related local day trips which numbered 101,422.

While providing recreation opportunities to local residents is an important contribution, the recreation expenditures of locals do not represent new money introduced into the economy. If public land-related opportunities were not present, residents would likely participate in other locally based activities and their money would still be spent in the local economy. After separating the contributions made from local residents[32], Recreation contributes 249 jobs and $9.5 million in labor income to the Planning Area (Table 3.22-4).

3.22.2.2 Livestock Production

Within the Planning Area, agriculture plays an important economic and social role; area residents identify with the tradition, land-use and history. However, from 1970 to 2000, employment in the Farm sector (which includes livestock grazing) as a share of total employment decreased by nearly half (from 12.8 to 6.7 percent) (U.S. Department of Commerce 2010).

The estimated potential grazing opportunity[33] in the Planning Area is currently 37,600 AUMs. However, it is estimated that 25,200 AUMs were actually used in 2010 due to factors such as drought, changes in active permit holders, financial limitations on operators and market conditions. The cattle inventory which could be supported by estimated actual use on BLM can be compared to the total cattle inventory within Planning Area counties. The 2010 authorized use level provided approximately 0.1 percent of the forage required for the 2,496,865 cattle inventoried within the Planning Area counties in the most recent agricultural census (U.S. Department of Agriculture 2007). While forage on BLM provides a relatively small portion of forage necessary to feed livestock in Planning Area counties it is more important on smaller scales within the Planning Area.

A thin profit margin often separates these livestock producers from negative net earnings. Often, employment outside the ranch augments livestock producer income. Federal grazing land is particularly valuable because of the low grazing fees charged for use of this land. Fees charged by BLM for grazing are calculated using the formula required under BLM grazing regulations found at 43 CFR 4130.81(a)(1) and are considerably less than those charged for private grazing land. In 2009 the statewide average AUM price for private land was $16.40 (U.S. Department of Agriculture 2010). The BLM formula yielded a fee of $1.35 per AUM in 2010 which is down from $1.56 in 2006. This

[32] Local residents recreating on BLM contribute 53 jobs and $2.2 million in labor income on an average annual basis.
[33] This is the total of authorized AUMs and projected future authorized AUMs, under the assumptions that 75 percent of acres available for application would be authorized with a stocking rate of 5 acres per AUM.

federal land is the least expensive grazing land available, hence use and access is coveted by area ranchers even though additional costs are usually incurred to use these lands. Additional costs include poor water availability, lower forage quality, seasonal use restrictions, fencing cost and possessory interest taxes. Consequently, the benefit to area ranchers from BLM grazing cannot be assumed to be equal to the entire price difference between the competitive forage price and the BLM grazing fee. Regardless, additional value accrues to area ranchers above the price paid and additional costs described previously. A portion of this value is reflected in private property values for properties that have preference for permit or lease of BLM grazing allotments. This value is particularly critical in the Bakersfield FO where many livestock operations rely on intermingled and unfenced BLM land to complete their operations, without which they would manage fragmented parcels, sometimes not capable of supporting a livestock operation on their own.

In addition, to the value of forage supplied by BLM, livestock grazing on BLM provides local area employment and income. Using the IMPLAN input-output model described above, estimates of the BLM employment and income contribution are calculated from actual forage use on BLM in 2010. This number represents total employment and income from direct, indirect and induced contributions. In terms of local area contributions from BLM supplied forage, current actual use levels of grazing on BLM support approximately 3 jobs and $83,000 in labor income on an average annual basis (Table 4). While these numbers appear small, it must be remembered that these employment and income estimates account for the portion attributable to use on BLM and not the entire job, thus multiple permittees could be included in the estimate of a single job. While BLM allotments often provide only a portion of a permittee's forage these allotments provide an important complement to ranching operations that also occur on adjacent national forest and intermingled and unfenced private land.

3.22.2.3 Mining

From 1970 to 2000, estimated mining employment (which includes oil and gas) as a share of total employment decreased by 0.8 percent in Planning Area counties (U.S. Department of Commerce 2010). Given the small number of firms in the area within the industry, data are not disclosed by the U.S. Department of Commerce for 2009 however, similar IMPLAN data depicted in Figures 3.22-1 and 3.22-5 show that mining made up 1.0 percent of employment and 1.8 percent of labor income in 2009 within Planning Area counties (IMPLAN 2009).

Planning Area counties are a significant source of oil in the state and the nation. In 2009, Planning Area counties provided 83 percent of state oil production. Most oil and gas activity takes place in Kern County where 75 percent of state production (State of California 2009) and 8 percent of national production occurred in 2009 (U.S. Department of Energy 2011).

In 2009, extraction and drilling of oil and gas within Planning Area counties accounted for 0.5 and 1.1 percent of employment and labor income within these counties. In addition, 0.33 and 0.5 percent of employment is attributable to support activities associated with oil and gas operations. Oil and gas activity is thus responsible for 88 percent of mining employment and 91 percent of

mining income within the Planning Area counties (IMPLAN 2009). Most oil and gas activity on federal mineral estate occurs in Kern County where extraction, drilling and support activities for oil and gas make up 1.4, 0.3 and 1.5 percent of all employment and 3.6, 0.5 and 2.2 percent of all labor income in the county (IMPLAN 2009).

Oil and gas fields on BLM-managed mineral estate within the Bakersfield FO have been active for over a century and are well developed. The number of oil and gas wells on BLM in the Field Office changes based on energy market conditions and other factors. While 362 applications for permits to drill were issued in the field office in 2010 about 100 to 400 APDs are issued annually depending on energy prices and other market conditions. Currently about 7,400 wells can be found on BLM in the Planning Area which produced approximately 5,000,000 thousand cubic feet of gas (MCF), 19 million barrels (bbl) of oil and 2 million gallons of natural gas liquids in 2010. Direct employment and labor income in oil and gas related sectors from this BLM activity accounts for about 7 percent of employment and 6 percent of labor income in Planning Area counties (1,132 jobs and $87 million in labor income). Total direct, indirect and induced employment and labor income are 2,871 jobs and $175 million in income on an average annual basis (IMPLAN 2009). It is anticipated that recent levels of oil production in the Planning Area are near the top of anticipated production levels (19 million bbls) while historically lows of 15 million bbls have been produced and can be anticipated with changing future market conditions The range of price evaluated ranges from a low of $85.89 per barrel (bbl) which corresponds to the California onshore price in January of 2011 and $110 which was the price in April (U.S. Department of Energy 2011b) consequently the value of potential production from BLM ranges from $1.3 to $2.1 billion dollars.

In addition, locatable and saleable mineral materials are removed from the Planning Area. One salable mineral community pit (Kelso) provides sand and gravel and one solid leasable project also provides Gypsum from federal mineral estate. Saleable and solid leasable mineral removed from the Decision Area includes about 2,000 tons of sand and gravel of construction grade and 5,000 tons of gypsum. Locatable mineral material removed includes approximately 100 ounces of gold and 200 ounces of silver. These activities on public land in the Decision Area support less than one job and $7,000 in labor income on an average annual basis (Table 3.22-4). A portion of the revenues received by BLM from the sale of materials and the lease of land is distributed back to counties in the Planning Area. The contributions to area employment and income from these payments are discussed below under revenue sharing.

3.22.2.4 Externally Funded Projects

A portion of the management activities occurring on public lands in the Decision Area are performed with funds not accounted for under general BLM expenditures discussed below. These funds often come from external sources such as stewardship grants. Examples within the Planning Area include road decommissioning and closures funded by State of California OHV Commission Grants (also referred to as "Greensticker grants"). In addition, the Bureau of Reclamation provides funding for habitat restoration activities at Atwell Island, which is adjacent to the community of Alpaugh. Activities funded by the BOR for this effort include weed treatment, prescribed burning

and other restoration projects. In addition, BLM works with the community providing contracting opportunities and environmental education partnerships with the schools. As a result of these externally funded projects 15 jobs and $458,000 in labor income are supported in the Planning Area economy on an average annual basis (Table 3.22-4).

3.22.2.5 Revenue Sharing

In 1976, Congress passed legislation to provide funding to counties through Payments in Lieu of Taxes (PILT) in order to compensate for tax revenues not received from Federal lands. These taxes would typically fund various services that are provided by counties (road maintenance, emergency services, and law enforcement). The PILT payments are determined using a formula which accounts for the county acreage of federal land, county population and the previous year's revenue sharing from resource uses on federal land (timber, range, mining etc.). In November of 2008 additional payments were authorized by the Emergency Economic Stabilization Act of 2008 (Public Law 110-343). The law authorized counties to receive their full entitlement level payment from 2008 through 2012. Table 3.22-6 below depicts 2010 payments along with BLM entitlement acreage per county. The last column on the right is the average payment attributable to the share of BLM entitlement acreage from each county's total entitlement acreage (Table 3.22-5).

Table 3.22-5
PILT Entitlement Acreage and Payments by County

	BLM Entitlement Acreage	Total Federal Entitlement Acreage	BLM Entitlement Acreage Share	2010 Payment	BLM Share of Payment
Fresno County	157,178	1,524,212	10.31%	$1,952,456	$201,339
Kern County	703,334	1,081,528	65.03%	$2,386,461	$1,551,952
Kings County	7,646	8,190	93.36%	$18,677	$17,436
Madera County	3,453	506,338	0.68%	$701,345	$4,783
San Luis Obispo County	240,895	437,569	55.05%	$1,035,330	$569,981
Santa Barbara County	7,462	716,555	1.04%	$1,683,688	$17,533
Tulare County	121,701	1,532,012	7.94%	$2,724,727	$216,449
Ventura County	1,928	578,470	0.33%	$1,356,147	$4,520
Planning Area Total	**1,243,597**	**6,384,874**	**19.48%**	**$11,858,831**	**$2,309,773**

Source: U.S. Department of the Interior 2011b

In addition to PILT, counties receive a share of livestock grazing revenues under the 1934 Taylor Grazing Act. Fifty percent of section 15 grazing lease fees and 12.5 percent of section 3 grazing permit fees are distributed back to counties where the livestock grazing authorization occurs. In addition, possessory interest taxes are paid by federal grazing permittees and lessees (approximately 1.1 percent of grazing fee payments) to counties in place the property tax counties would normally receive on privately held land. These payments amount to about $16,000 across all Planning Area counties based on 2009 authorized use levels and the $1.35/AUM grazing fee. Using the IMPLAN input-output model described above, estimates of the BLM employment and income contribution

are calculated from PILT and grazing payments. These payments account for 27 total jobs (direct, indirect and induced) and $1.4 million in labor income on an average annual basis.

Royalties from oil and gas revenues are shared with the state of origin (49 percent of revenue is returned to states and 51 percent is retained by the federal government). States determine how to spend their share of federal mineral royalties within broad federal guidelines (priority must be given to areas socially or economically impacted by mineral development for planning, construction/maintenance of public facilities, and provision of public services). California distributes 50 percent of royalties directly to counties where extraction and leasing activities take place (the county of origin) (personal communication with California State Controller's Office April 2011). The price of natural gas was $3.95 per thousand cubic feet in 2010 (MCF) while the first purchase price for oil ranges from a low of $85.89 per barrel (bbl) which in January of 2011 and a recent high of $110 in April (U.S. Department of Energy 2011b). Conservative estimates of annual production from the field office suggest that 5,000,000 MCF of gas and from 15 to 19 million bbls of oil can be anticipated with changing future market conditions. Consequently, of the 12.5 percent royalty rate, counties in the Planning Area could expect to receive 3.06 percent (12.5 * .49 * .5 = 3.06 percent of gas and oil sales, $19.8 and from $1.3 to 2 billion, respectively) which amounts to $606,375 and from $39 to 64 million, respectively. In addition to royalty revenue, 49 percent of lease fees and bonus bids are returned to California of which 50 percent are returned to counties. Lease rental is $1.50 per acre per year for the first five years and $2.00 per acre per year thereafter. Typically, oil and gas leases expire after 10 years unless held by production. Annual lease rentals continue until one or more wells are drilled that result in production and associated royalties. These lease payments contribute $2.1 million on an average annual basis, in addition to payments to counties from royalties. These mineral related payments made up less than one percent of general government revenue in all Planning Area counties (Table 3.22-6). As noted above most oil and gas activity on BLM occurs in Kern County, and if all minerals related payments were returned to Kern County these payments would constitute approximately 3 percent of general government revenue.

Table 3.22-6
General Government Revenue

	Thousands of 2010 dollars
Fresno County	$1,324,512
Kern County	$1,852,573
Kings County	$215,642
Madera County	$489,295
San Luis Obispo County	$990,890
Santa Barbara County	$789,469
Tulare County	$1,709,489
Ventura County	$195,347
Planning Area Total	$7,567,216

Source: U.S. Department of Commerce 2009

As noted above and in the Reasonably Foreseeable Development Scenarios developed for this plan (Appendix M) oil and gas are worldwide commodities and events that occur globally may have effects on production in the U.S. and in the Planning Area. In addition, the US and worldwide economic conditions have changed dramatically within the last couple of years, causing further uncertainty. Therefore, a range of oil production and price is evaluated here and in Chapter 4 to provide context within a range of possible scenarios for payments to counties. Based on the range of oil and gas price depicted above, employment and income effects to Planning Area counties from royalty payments would amount to approximately 491 to 776 jobs and from $26 to $41 million in labor income on an average annual basis.

Together, contributions to counties from PILT payments, livestock grazing revenues and mineral related activities provide between 518 and 803 jobs and up to $42 million in labor income on an average annual basis within Planning Area counties (Table 3.22-4).

3.22.2.6 BLM Expenditures and Employment

BLM management in the Planning Area provides a direct contribution to the area economy by employing people who reside in the area and by spending dollars on project related goods and services throughout the Planning Area. In addition to 78 Full time employees (FTE), 30 seasonal staff work and live in the area (other than permanent – OTP). After inflating annual salary and non-salary expenditures it is apparent that Bakersfield FO expenditures have risen since 2006 (Table 3.22-7).

Table 3.22-7
Field Office Expenditures

	Salary (2010 dollars)	**Non-Salary** (2010 dollars)
2006	$5,036,308	$2,538,876
2007	$5,344,287	$4,286,540
2008	$5,358,323	$4,009,302
2009	$5,257,865	$3,436,861
2010	$6,014,612	$3,907,096

Source: Field office Staff 2011

Project related expenditures are attributable to project work for all BLM program areas listed in Table 3.22-4. The contributions from the specific resource programs listed in each respective row of Table 3.22-4 do not include these BLM expenditures. Thus, program related expenditures accrue to the area in addition to program specific contributions in the form of products, such as grazing forage and recreation opportunities. Program related expenditures do not include expenditures associated with emergency fire suppression since these cannot be considered consistent contributions to the area economy. On an average annual basis, BLM expenditures and employment support 177 jobs and $9.1 million in labor income (Table 3.22-4).

3.22.2.7 Renewable Energy Development

Wind generation has become part of the California landscape and economy. Local businesses and counties are benefiting from the influx of resources and tax revenue from these projects. However, it remains to be seen whether BLM land can contribute to the Planning Area economy and community well-being through provision of energy ROWs.

Community/Cooperative Projects sell power through Power Purchase Agreements with regulated utilities. These projects are attractive because they can become community revenue generators, involve schools and local interests, and help supplement future power growth. Large Commercial Projects are sited in areas of strong winds, transmission access, and market demand. As suitable windy land becomes more saturated with development, the availability of leases on federal land may play a larger role in the industry.

Installed wind power capacity in California has increased from 1,616 megawatts (MW) of power in 2000 to 3,177 MWs as of December 31st, 2010 (U.S. Department of Energy 2011c). The state ranked 3rd in the nation in installed wind power capacity and projects are currently under construction off of public lands within the Planning Area (American Wind Energy Association 2011). Currently no public land in the Planning Area has been granted ROWs for wind projects; however, in the past several years ROW applications have been received for wind testing and access across public land. If actual wind energy development were to occur on public land in the Planning Area, employment and labor contributions would result. For every 1.5 MW turbine 9 FTE jobs and $580,000 in labor income would result during construction and about a third of an FTE and $21,000 labor income would be provided annually during normal operation and maintenance (U.S. Department of Energy 2011d).

Within the Planning Area, there are currently no federal geothermal leases; however, several areas of high potential exist. Similarly, the Bakersfield FO has never had any solar installation projects; however, there are several pending wind and solar ROW applications, thus future ROW across public land may be granted and thus support renewable energy projects off of public land. For example, currently one solar ROW application is pending and two more were recently received by the Bakersfield FO.

3.22.2.8 Decision Area Contributions by Industry

Table 3.22-9 shows the estimated employment and labor income by industry, generated by activities in the Decision Area. As previously discussed, the Planning Area related employment and labor income contributions listed here exclude those made from local resident recreation. In total, Bakersfield FO management activities in Planning Area counties account for 0.2 percent of jobs and 0.02 percent labor income on an average annual basis (Table 3.22-8).

The two largest employment and labor income contributions from activities in the Decision Area, in absolute value, would occur in the Mining (which includes oil and gas) and the Government sectors. The industry sector with the highest percent of employment and labor income dependent on BLM

contributions is the Mining sector; relying on BLM for 7.2 percent of employment and 6.0 percent of labor income. Employment and income generated by activities on public land account for less than a half of a percent of Planning Area totals in all other industry sectors (Table 3.22-8).

Table 3.22-8
Current Role of Field Office Contributions in the Planning Area Economy

Industry	Employment (Jobs)			Labor Income (Thousands of 2011 Dollars)		
	Area Totals	BLM Related	% of Total	Area Totals	BLM Related	% of Total
Agriculture (includes livestock grazing)	189,623	44	0.02%	$8,396,005	$1,409	0.02%
Mining	17,539	1,264	7.21%	$1,670,936	$100,895	6.04%
Utilities	8,971	14	0.16%	$1,292,493	$2,049	0.16%
Construction	95,984	223	0.23%	$5,695,125	$12,877	0.23%
Manufacturing	111,225	82	0.07%	$8,579,144	$5,714	0.07%
Wholesale Trade	51,834	111	0.21%	$3,819,836	$8,168	0.21%
Transportation & Warehousing	46,871	100	0.21%	$2,480,247	$5,125	0.21%
Retail Trade	186,382	289	0.16%	$6,610,497	$10,058	0.15%
Information	20,720	32	0.16%	$1,545,240	$2,411	0.16%
Finance & Insurance	60,953	143	0.23%	$3,796,488	$7,824	0.21%
Real Estate& Rental & Leasing	64,083	124	0.19%	$1,240,335	$3,336	0.27%
Prof. Scientific, & Tech. Services	95,079	306	0.32%	$6,046,025	$19,874	0.33%
Mgmt. of Companies	13,433	53	0.40%	$1,185,441	$4,708	0.40%
Admin., Waste Mgmt. & Rem.	96,336	172	0.18%	$3,181,003	$5,528	0.17%
Educational Services	23,069	33	0.14%	$655,150	$928	0.14%
Health Care & Social Assistance	178,500	244	0.14%	$9,584,686	$13,337	0.14%
Arts, Entertainment, and Rec.	26,158	54	0.21%	$748,113	$1,394	0.19%
Accommodation & Food Services	119,893	308	0.26%	$2,790,694	$7,647	0.27%
Other Services	117,855	140	0.12%	$4,039,454	$5,186	0.13%
Government	316,128	380	0.12%	$22,040,312	$22,500	0.10%
Total	**1,840,636**	4,117	0.22%	**$95,397,223**	$20,586	0.02%

Source: IMPLAN 2009

While these contributions by industry appear small, the labor income and employment generated from BLM activities in the Decision Area may be more important to smaller communities within the Planning Area. For example, specialization in the Mining and Agriculture sectors was noted above. BLM contributions to these sectors make up seven and less than one percent of the employment in these sectors across all Planning Area counties (Table 3.22-9) and likely make larger shares of employment at smaller scales within the Planning Area. Thus individual counties and communities may be more susceptible to changes within the Planning Area if they are specialized in sectors connected to BLM actions.

3.22.3 NON-MARKET ECONOMIC VALUE

The value of resource goods traded in a market can be obtained from information on the quantity sold and market price; however, markets do not exist for some resources, such as recreational opportunities and environmental services. Measuring their value is important, since without estimates, these resources may be implicitly undervalued and decisions regarding their use may not accurately reflect their true value to society. Because these recreational and environmental values are not traded in markets, they can be characterized as non-market values.

Non-market values can be broken down into two categories, use and non-use values. The use-value of a non-market good is the value to society from the direct use of the asset; within the Planning Area this occurs through activities such as recreational fishing, hunting and bird watching. The use of non-market goods often requires consumption of associated market goods, such as lodging, gas, and fishing equipment.

Non-use values of a non-market good reflect the value of an asset beyond any use. These can be described as existence, option and bequest values. Existence values are the amount society is willing to pay to guarantee that an asset simply exists. An existence value of BLM lands within the Planning Area might be the value of knowing that undisturbed archeological sites or San Joaquin Kit Fox habitat exists on BLM lands. Other non-use values are thought to originate in society's willingness to pay to preserve the option for future use; these are referred to as option values and bequest values. Option values exist for something that has not yet been discovered, such as the future value of a plant as medicine. In the Planning Area bequest and option values might exist for numerous plant species.

Non-market use and non-use values can be distinguished by the methods used to estimate them. Use values are often estimated using revealed preference methods or stated preference methods while non-use values can only be estimated using hypothetical methods. While use and non-use values exist for the Planning Area, evaluation is not always feasible during the planning process. However, this does not preclude their consideration in the planning process.

3.22.4 ENVIRONMENTAL JUSTICE

Environmental justice refers to the fair treatment and meaningful involvement of people of all races, cultures and incomes with respect to the development, implementation and enforcement of environmental laws, regulations, programs, and policies. Executive Order 12898 requires Federal agencies to "identify and address the disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

According to the Council on Environmental Quality's (CEQ) Environmental Justice Guidelines for NEPA (1997) "minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis." Table 2 above shows that many Planning Area

counties have shares of their population identified as Hispanic or of other minority groups that were greater than the state's share in 2010. Thus, the US Census data suggest minority populations within the Planning Area meet the CEQ's Environmental Justice criterion.

CEQ guidance on identifying low-income populations states "agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect." The discussion above on poverty noted the share of those living below the poverty line was greater than the state in many Planning Area counties (Table 3). Thus, the census data indicate low income populations, as defined by CEQ, exist within the Planning Area.

3.23 PUBLIC SAFETY AND HEALTH

The BLM has responsibility to address known public health and safety concerns on public lands to reduce risks to visitors and employees. Potential dangers may include abandoned mine lands, explosives and munitions, hazardous materials, industrial hazards, and naturally occurring hazards. There are inherent risks to visiting public lands beyond these identified potential dangers such as trips and falls while hiking, altercations with other public land users, use of OHV equipment, travel on primitive and unmaintained routes, presence of wildlife and poisonous plants, and heat and cold exposure.

Public health and safety responsibilities are shared amongst several federal and state agencies including: U.S. Environmental Protection Agency, Occupational Safety and Health Administration (OSHA), and California environmental regulatory agencies such as the Department of Toxic Substances Control, Integrated Waste Management Board, Air Pollution Control Board and the Regional Water Quality Control Board.

These agencies implement a variety of regulations, including the Toxic Substances Control Act of 1976 (TSCA) (40 CFR 700-750, 760's, 790-799), the Resource Conservation and Recovery Act (RCRA) (40 CFR 260-263, 264-270), the Occupational Safety and Health Act (OSH Act) (29 CFR 1910), the Comprehensive Environmental Response, Compensation, and Liability Act and Amendments (CERCLA) (40 CFR 300's), the Superfund Amendments and Reauthorization Act of 1986 (SARA), and the California, regional and local jurisdictional equivalent of these laws and regulations.

The proximity of the Planning Area to major population centers in central and southern California, along with the accelerated growth and use of public lands, has put considerable user pressure on these lands, emphasizing the need for BLM to develop and implement additional strategies for protecting the health and safety of visitors.

3.23.1 ABANDONED MINE LANDS

California has a long and distinguished mining history and a legacy of abandoned mines. These areas contain extreme physical hazards that are not always apparent, which may result in serious injury or death. These hazards include: mine openings (known as a portals, adits, or shafts), explosives and toxic chemicals, dangerous gases, spoils (overburden and mill tailing) piles, and discarded equipment and buildings. Visitors to public lands are often attracted to these abandoned facilities which present very real physical and toxic hazards to the public.

Within the Planning Area many of the abandoned mines are located within historic mining districts. Current inventories, although not complete, have located 712 abandoned mine land features within the Decision Area. This inventory includes sites either identified as, or under consideration for, the national Priorities List or Superfund List such as the Amalie; Buena Vista, Big Blue, Kings, and Rinconada mines. The greatest concentration of physical abandoned mine hazards in the Decision Area, however, are located in the Keyesville Historic Mining District. The greatest concentration of toxic abandoned mine hazards in the Decision Area are located in the Santa Lucia Mountains and in the Parkfield Mining District.

Remediation of these sites includes removal of hazardous materials, stabilization or demolition of equipment and buildings, and closure of mine openings based on site-specific analysis and needs. This work has generally been achieved in partnership with the California State Abandoned Mine Program, the United States Environmental Protection Agency, and the United States Forest Service, and on average has resulted in six closures annually. Remediation and closure is complicated by the need to protect wildlife habitat (in particular shafts and adits which have become roosting locations for bats) and historic resources (including abandoned buildings and equipment); however, potential impacts to these resources identified through the NEPA process have been addressed through biological monitoring, design and installation of closure mechanisms, and recordation or historical resources.

3.23.2 EXPLOSIVES AND MUNITIONS

The potential for unexploded ordnance (UXO) in most of the Decision Area is fairly low. However, the potential increases toward the coast given the military history throughout the area. UXO is most likely to occur either on public lands adjacent to military installations or where military activities have occurred. Although none have been reported, there is also a possibility UXO may be washed ashore and deposited on public lands at either Point Sal or Piedras Blancas. Routine staff patrol of the shoreline at Piedras Blancas addresses the public safety concern at this location. Public visitation to Point Sal is minimal and concerns over UXO would be addressed when reported. If UXO is discovered on public lands the BLM would alert the appropriate authorities and may temporarily restrict public access until the issue is resolved.

3.23.3 HAZARD MATERIALS

Bureau-wide, BLM engages in hazardous material emergency response actions, site evaluations, and prioritization of cleanups in accordance with federal, state and local laws and regulations. BLM

works with the EPA, State environmental health departments, counties, and potentially responsible parties (public and private) to fund and provide oversight in the cleanup of hazardous materials sites. Sites that are an imminent threat to public health and safety as well as sites under a regulatory administrative order are a priority for BLM.

Sources of hazardous materials on public lands include negligent and illegal activities, as well as authorized operations. The principal known sources within the Decision Area include: hazardous materials releases from oil and gas exploration and production operations; landfills and burn dumps; illegal domestic and industrial dumping; the disposal of clandestine drug lab wastes, and the cultivation of marijuana on public lands. Routine patrol and investigation by BLM Law Enforcement Rangers and Special Agents addresses these issues as they relate to public health and safety and resource concerns.

3.23.4 INDUSTRIAL HAZARDS

Areas of intensive industrial development (e.g., heavily developed oil and gas fields (Map 3.30) and mineral production sites) pose specific risks in addition to the presence of hazardous materials and chance for spillage. These include presence of methane and hydrogen sulfide (naturally occurring gasses released during production), dangers associated with production equipment, subsidence due to oil, gas, or produced water production, and risks posed by the interaction of public and industrial vehicular traffic.

To reduce these risks to both BLM and industry employees, specific training programs addressing personal protective equipment, hydrogen sulfide monitoring, and defensive driving are required. In addition, Onshore Order #6 addresses requirements for operations in areas known or with the potential to produce hydrogen sulfide gas for the protection of human health and safety and to protect the environment. The public visiting these areas are exposed to the same risks without the benefit of awareness training or provision of personal protective equipment.

3.23.5 NATURALLY OCCURRING HAZARDS

Natural hazards include active fault or seismic zones; areas prone to landslides; caves, potentially toxic minerals and assemblages such as arsenic, asbestos, and mercury, and presence of certain organisms (including dangerous plants, wildlife, fungi and micro-organisms). Of specific concern to BLM in the Decision Area are the occurrence of asbestos-bearing soils and presence of *Coccidioides immitis* that causes valley fever.

3.23.6 ASBESTOS-BEARING SOILS

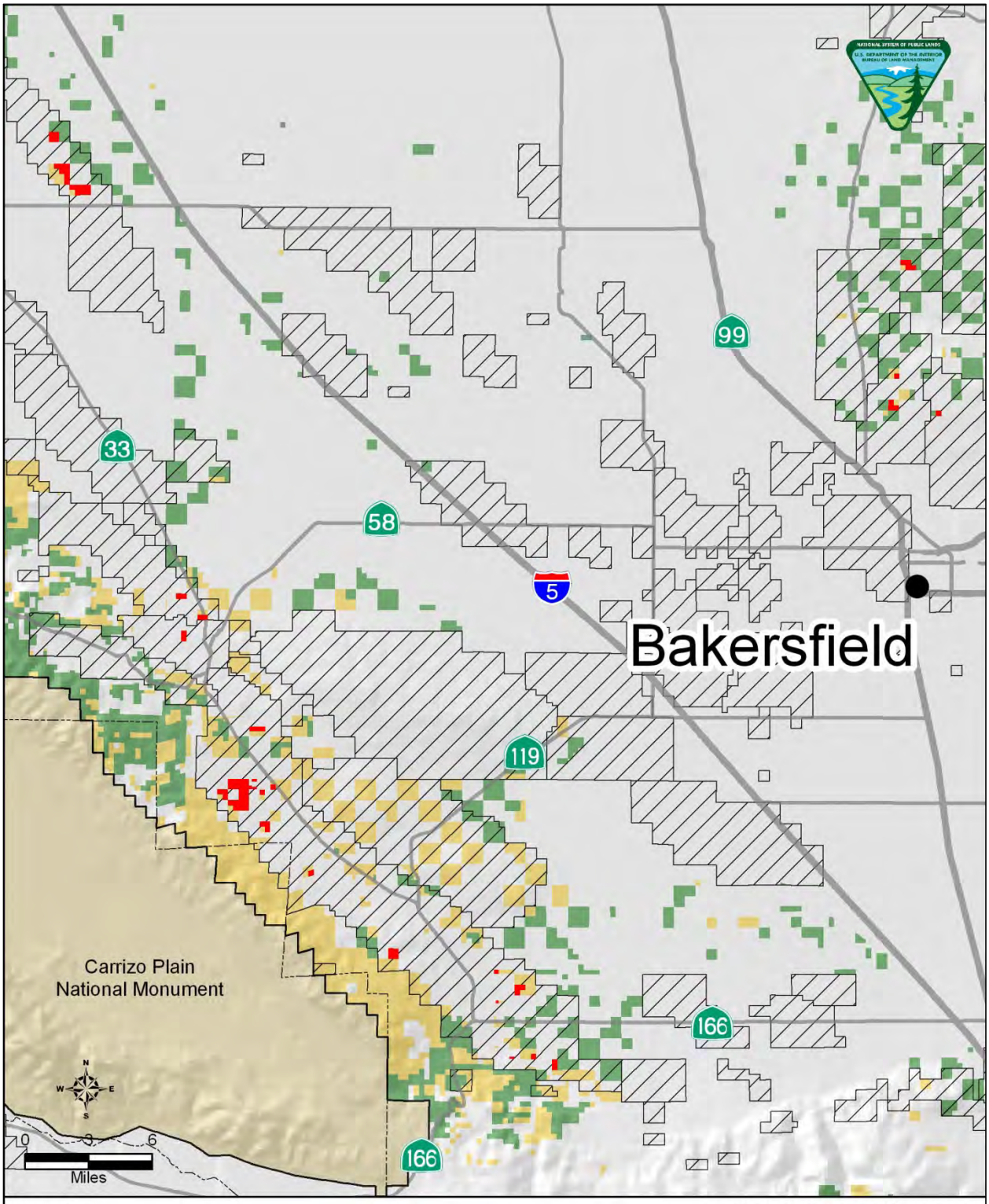
Portions of the Planning Area have small areas of asbestos-bearing serpentine and ultramafic rocks. The asbestos can be a hazard to public health, since exposure to asbestos may result in asbestos fibers being inhaled or ingested, which over time and in some cases may result in damage to the lungs or membranes that cover the lungs, leading to illness or even death.

Locations of serpentine soils are considered in fire response planning to protect firefighter health and safety. In addition, consideration of these areas is given during travel and recreation planning. Some construction and development activities that may cause disturbance to these soils are subject to the California EPA Air Resources Board Asbestos Airborne Toxic Control Measure (California Code of Regulations Title 17 Public Health, Section 93105).

3.23.7 VALLEY FEVER

Coccidioides immitis, the fungi that causes valley fever, thrives in the alkaline desert soils of Arizona, California, Nevada, New Mexico, Texas and Utah including parts of the Planning Area. These fungi grow in soils as mold with long filaments that break off into airborne spores when soils are disturbed (see Soils Section). It is then swept into the air by anything that disturbs the surface. This includes earthquakes, storms, farming, and construction. In California, the risk is highest during summer months, usually June through August.

For more than half the people infected, this poses no problem; their immune system effectively fights off the fungus and they never develop symptoms. Others have varying degrees of symptoms such as chest pain, weakness, fever, chills, night sweats, and joint aches. In some cases, the illness progresses to severe pneumonia or spreads beyond the lungs and may ultimately prove fatal.



Legend

- Bakersfield Field Office
- County Boundary
- Heavily Developed Oil Fields (BLM Surface)
- Oil & Gas Fields
- Public Lands
- Federal Mineral Estate

Heavily Developed Oil Fields
Bureau of Land Management
Bakersfield Field Office

Map 3.30

3.24 TRIBAL INTERESTS

There are eight federally recognized tribes and several unrecognized Native American tribes and groups that have interests in and historical ties to lands within the Planning Area. These include the Salinan, Chumash, Esselen, Costanoan, Yokuts, Kawaiisu, Mono, Shoshone, Paiute, Kitanemuk, and Tubatulabal peoples. The federally recognized tribes include the following:

- Santa Ynez Band of Chumash Indians
- Tachi Yokut Tribe of the Santa Rosa Rancheria
- Big Sandy Rancheria
- Cold Springs Rancheria
- North Fork Rancheria of Mono Indians
- Table Mountain Rancheria
- Tule River Reservation.
- Picayune Rancheria of the Chukchansi Indians

There are no existing treaty rights with regard to Native American resource uses within the Planning Area. However, several authorities require BLM to consider potential impacts to places of traditional cultural or religious importance to Native American people during the planning process these areas are discusses and impacts addressed in *Cultural Resources*, Chapters 3 and 4. Efforts are made through consultation to insure that potential impacts to these places are given proper consideration and any concerns are addressed. Native American people have previously identified several locations to be of particular cultural significance on public lands within the Planning and Decision Areas. Due to the cultural sensitivity associated with this information, in most cases, the nature and location of these places remains confidential. Additional areas of interest or cultural significance may be determined through the RMP/EIS Native American consultation process, which is ongoing.

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DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
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