Click on the Bookmark feature of Acrobat reader to access clickable links

Click on the Bookmark feature of Acrobat reader to access clickable links

Chapter 2. Alternatives

2.1 Introduction

The *National Environmental Policy Act* (NEPA) requires federal agencies to consider a reasonable range of alternative approaches when proposing and analyzing federal actions, including those proposed in this resource management plan (RMP) / environmental impact statement (EIS). This chapter describes a range of alternative approaches to management of the Carrizo Plain National Monument (CPNM). Each alternative is designed so that it could serve as a stand-alone plan. Three management alternatives have been developed for the CPNM. These alternatives are also called "action alternatives" throughout this chapter. In addition, a "no-action alternative" is described and analyzed. The no-action alternative is required by the Council on Environmental Quality's regulations for implementing NEPA (40 CFR 1502.14) and provides a benchmark description of current management to allow comparison of the action alternatives. For the purposes of this plan, the no action alternative constitutes continued implementation of the Carrizo Plain Natural Area (CPNA) Plan, the Caliente RMP, and the direction contained in the Monument Proclamation.

Section 2.2 of this chapter describes the alternative development process for the CPNM RMP and gives an overview of the focus of each of the three action alternatives considered. Section 2.3 discusses the adaptive management principles that are incorporated into this planning process.

For each of the following resources, resource uses, and special designations, the details of their management under each alternative are described in the remaining major sections of this chapter:

2.4 Biological Resources
2.5 Fire and Fuels Management
2.6 Air Quality
2.7 Soils
2.8 Water Resources
2.9 Wild and Scenic Rivers
2.10 Geology and Paleontology
2.11 Cultural Resources
2.12 Visual Resources
2.13 Wilderness Study Areas and Other Lands with Wilderness Characteristics
2.14 Areas of Critical Environmental Concern
2.15 Livestock Grazing
2.16 Recreation and Interpretation
2.17 Administrative Facilities
2.18 Travel Management
2.19 Minerals
2.20 Lands and Realty
2.21 Research Management

These detailed, resource-specific descriptions of the management alternatives are followed by a summary table that gives a side-by-side comparison of the alternatives, by resource.

RMPs are broad-scale land management plans that establish desired outcomes (goals and objectives) for management of public lands and identify the management actions and allowable public uses that will achieve those outcomes. A final RMP provides the framework for site-specific management decisions and actions. These implementation-level decisions are typically made after the RMP is adopted, but in some cases they are identified during the RMP process and incorporated into the alternatives, especially when

the plan covers a relatively compact geographic area such as a National Monument. For example, decisions about designating routes as motorized or non-motorized, which are implementation-level decisions, are part of the alternatives presented in this document. Not all issues can be resolved in the general language of an RMP, instead requiring that more detailed implementation plans and NEPA analysis be developed to determine exactly how to reach desired conditions or to achieve a desired result. Prior to being initiated, all implementation actions will be subject to the appropriate level of NEPA review. Through this process, the Bureau of Land Management (BLM) will ensure the project is consistent with the Monument Proclamation and the management goals and objectives for the CPNM in this RMP.

Throughout this chapter, the action alternatives (Alternatives 1, 2, and 3) share the same format and were developed through the planning and scoping process for this RMP/EIS. The format for the no-action alternative is different because, as described above, it is directly derived from information in current land use plans. Each action alternative contains goals, objectives, management actions, and allowable uses. These are defined as follows:

Goals describe broad direction and desired conditions for each resource or resource use. The goals stay the same for all alternatives. Goals are derived from the Monument Proclamation, BLM policy guidance, and public scoping input.

Objectives describe more detailed outcomes or "desired future conditions" for different components of the resource or resource use that meet the overall goals. Some objectives are common to all alternatives while others vary by alternative.

Management Actions describe efforts that CPNM managers anticipate taking to achieve the objectives (for example, prescribed burning, road decommissioning, monitoring), based on the best available information and technology at the time of plan development. As new information, technology, or practices become available or established, certain management actions may be added, modified, or discontinued to incorporate the best available science using an adaptive management approach. The adaptive management process is discussed in more detail in Section 2.3.

Allowable Uses: For the use-oriented programs (grazing, recreation, transportation) the RMP also identifies allowable public uses and limitations on these uses.

Special Designations: RMPs also address special designations such as areas of critical environmental concern (ACECs) (administratively designated through RMP), and wild and scenic river suitability (analyzed in the RMP but requires Congressional action for formal designation).

The alternatives represent a reasonable range of approaches to managing land and uses consistent with law, regulation, and policy. They also provide a framework to evaluate the potential impacts to the planning area that could occur as a result of implementing various management scenarios. Development of the alternatives was guided by NEPA, the *Federal Land Policy and Management Act* (FLPMA), the National Monument Proclamation (Appendix A), BLM RMP regulations, and input from public and agency scoping. A final plan and Record of Decision (ROD) will be developed based on public input on this Draft RMP and subsequent analysis for development of a proposed RMP and final EIS. The Final RMP/ROD will contain the final decisions that will guide future management of the CPNM.

BLM has the discretion to select an alternative in its entirety or to combine elements of the various alternatives presented in this draft to develop the Final RMP. The reader may also select and/or combine elements of the various alternatives when providing comments on the Draft RMP.

2.2 Alternative Development

Alternatives must

- Meet the project purpose and need for the plan (see Chapter 1).
- Be viable and reasonable.
- Be responsive to issues identified in scoping.
- Meet the established planning criteria (see Chapter 1), federal laws and regulations, and BLM planning policy.

The alternatives identify different strategies for accomplishing the vision of the Monument Proclamation and meeting a variety of public needs. The range of alternatives was developed based on this input and in consultation with the Monument Advisory Committee.

2.2.1 Alternative Themes (for the Action Alternatives)

Alternative 1 represents a more "hands off" approach to resource management, and provides for more limited public uses of the Monument. For example, natural processes would be allowed to take their course with minimal interventions to stabilize fluctuations of wildlife and vegetation, except in instances where the populations are in jeopardy. No livestock grazing would be authorized. The largest acreage would be allocated to the "primitive" recreation zone and managed for wilderness character. A smaller road network would be open for public vehicle use. Access to rock art sites would not be permitted, and minimal interventions would be taken to stabilize or restore historic and prehistoric sites from natural decay.

Alternative 2 represents an approach that incorporates elements of the other alternatives as well as some unique elements to provide for protection of the Monument's resources while allowing for compatible public uses. For example, this alternative identifies moderate acreage for wilderness character management and a mix of active biological restoration and hands-off approaches in different areas of the Monument. Recreation use and rustic improvements would be focused along the Soda Lake Road corridor, with the remainder of the area providing for dispersed opportunities. This alternative provides for a transition to livestock grazing for vegetation management only. Access to Painted Rock would be allowed by permit and guided tour, and priority historic sites would be restored and stabilized.

Alternative 3 represents the most active approach to management and provides for a broader array and higher levels of public use and access while still retaining the overall rustic, undeveloped character of the Monument. For example, the managers would implement more intensive resource management and restoration actions for lands that have been impacted by past use. Only the existing Caliente Mountain Wilderness Study Area (WSA) would be managed for wilderness characteristics. Cultural sites would be stabilized, and a higher emphasis would be placed on environmental education programs and facilities linked to significant cultural and natural resources at indoor and field locations. Livestock grazing would continue to be managed for both vegetation management and forage production while meeting the Monument's biological and cultural resource objectives.

2.2.2 The Preferred Alternative

BLM planning policy requires that a preferred alternative be identified in the Draft RMP. For the CPNM RMP, Alternative 2 represents the preferred alternative. The preferred alternative represents an effort to identify an optimum course of action for area management. It was selected from a range of reasonable

options and represents an effort to provide balance in protecting and restoring resources of the CPNM while allowing for a variety of compatible public uses. Issues considered during this development process include the Monument Proclamation; environmental impacts of the alternatives; issues raised throughout the planning process; specific environmental values, resources, and resource uses; conflict resolution; public input; and laws, regulations, and the planning criteria.

2.2.3 Alternatives Considered but Dismissed

The following alternatives were considered based on public scoping or other input into the planning process. However, these management approaches were not analyzed in the RMP for the reasons described below.

2.2.3.1 Fire Management

The suggestion was to expand wildland fire use to parts of the CPNM outside of the Caliente Mountain WSA. The *Wildland Fire Use Implementation Procedures Reference Guide* (USDI and USDA 2005) was reviewed to determine some of the important decision elements that determine an area's suitability for wildland fire use. The two most pertinent decision elements that affect the CPNM's suitability for wildland fire use include proximity to private property and the potential effects on cultural and natural resources. In 1994, BLM personnel developed a fire pre-attack map that outlined sensitive areas susceptible to fire or fire suppression actions. Sensitive biological resources, many made up of sensitive saltbush areas, are scattered throughout the CPNM. When these areas that are sensitive to fire are combined with areas of private property inholdings, other agency infrastructure (structures and recreation developments), and other improvements such as power lines and oil/gas infrastructure, there are virtually no areas of significant size remaining where it would be practical to practice wildland fire use outside of the Caliente Mountain WSA. Application of a confine strategy is more practical in these smaller areas that are often bisected by roads or other control features. Therefore, consideration of wildland fire use outside of the Caliente Mountain WSA was eliminated from detailed study.

2.2.3.2 Livestock Grazing

One suggestion was to remove livestock grazing as an allowable use of livestock forage within the Monument and only use grazing as a vegetation management tool – or in other words, to "convert Section 15 grazing leases into free use grazing permits." This alternative was dismissed because it would conflict with BLM policy, federal regulations, and the Monument Proclamation, which states that BLM will follow laws, regulations, and policies in regard to administering grazing authorizations. The existing Section 15 leases authorize grazing use to the extent that available forage for livestock occurs on the allotments under lease. Thus, BLM would first need to cancel the Section 15 lease to make forage available, which then potentially could be authorized for use through another mechanism, such as a free use permit or a nonrenewable permit. BLM may cancel a grazing lease as a response to a lessee's failure to comply with grazing regulations, may initiate cancellation when needed because the land is passing from BLM administration, or may cancel a grazing lease as needed to avoid authorizing conflicting land use activities that are incapable of being simultaneously accommodated or carried out while achieving land use plan objectives. Issuing a different type of grazing authorization on the same area where BLM had just canceled a grazing lease for any of the above reasons would directly contradict or conflict with the purpose of the first cancellation. To address this issue in another manner, Alternative 2 in this DRMP includes a process that provides for phasing out Section 15 grazing leases, which could result in forage for livestock being made available for grazing use authorizations that carry no priority for renewal or to forage becoming unavailable for any grazing authorization. This process is predicated upon a lessee's voluntary relinquishment of their preference for the use authorized by their Section 15 grazing lease and the authorized officer's re-allocation of the forage made available by that relinquishment. A

determination, if any, that lands are unavailable for any grazing authorization would occur if the authorized officer determines that no grazing authorization would be capable of being simultaneously accommodated while achieving the land use plan objectives.

Another suggestion was to authorize all livestock grazing in the Monument under Section 15 leases. Issuing Section 15 grazing leases on lands for which BLM currently authorizes free grazing use would require that BLM make the lands available for lease and accept applications for such leases. The successful applicants would need to identify base property and otherwise meet regulatory requirements that are pre-requisite to obtaining grazing privileges on public lands. Concurrently with the award of the leases, BLM would attach preference for their renewal to the applicant's base property. Following this attachment, the lessee or their successors in interest in the base property would henceforth receive priority standing above other applicants for renewal of the lease. Further, the preference holder could request that BLM transfer this preference to other property that meets the requirements of base property and, if the transfer request was approved by BLM, the new preference holder then would receive priority for receipt and renewal of the lease. Further still, to change the terms and conditions of the lease – for example, to adapt to changed circumstances – BLM would be required to issue a formal decision subject to protest and appeal. This suggested action would then conflict with a prior authorized officer's grazing decision (September 26, 1996). This decision provided for the acceptance of the relinquishment of the federal grazing preference for use of these specific allotments and made them available for livestock grazing only if the purpose of the grazing is to manage vegetation to meet resource objectives other than the production of livestock forage. For this reason, the alternative was considered but dismissed from further analysis in this plan. To address a portion of the issue in this suggestion, Alternative 3 in this DRMP includes improving opportunities for livestock grazing in existing Section 15 lease areas. Although not expected to increase the amount of grazing use, this alternative would provide increased opportunities to improve the grazing use or efficiency of the existing allotments through the application of increased flexibility in grazing seasons, limited resource constraints, or improvement of livestock distribution or annual forage reliability through development of infrastructure such as water developments or drift fences.

Another suggestion was to authorize nonrenewable grazing use under applicable provisions of the grazing regulations. A nonrenewable permit may be issued by BLM to authorize a qualified applicant to use forage for livestock that is temporarily available, and grazing fees are charged for this use. BLM may issue a nonrenewable permit for a term not to exceed one year, and the permit does not have priority for renewal and cannot be transferred or reassigned. To receive a nonrenewable permit following a determination by BLM that forage for livestock was temporarily available, an applicant would need to support their application by identifying the base property that they own or control and that otherwise meets the requirements of the grazing regulations. As with free use, an applicant cannot establish preference for nonrenewable use and thus no preference attachment to base property would occur. In other words, should BLM determine in the future that forage for livestock is again temporarily available on the same pasture or allotment, the applicant would not receive a base property priority against other applicants for its use.

Ultimately, the question of the *type* of authorization to be used to authorize grazing on lands deemed available for grazing use, but only for purposes of vegetation management, is not a land use plan level decision, but an implementation decision that will be addressed on a case-by-case basis. BLM may determine that, in some circumstances, authorizing use in these areas by authorizing free grazing use is appropriate, while in others, authorization by issuing a nonrenewable permit that incurs grazing fees would be appropriate. Both options would remain available under either Alternative 2 or 3 or the no action alternative.

2.2.3.3 Wilderness Study Areas

BLM received recommendations through the scoping process that the RMP establish new WSAs within the CPNM. Consistent with BLM policy, the Secretary of the Interior's letter to Senator Robert Bennett (dated April 11, 2003), and the settlement in the case of *Utah v. Norton* (dated April 14, 2003), BLM has the authority under FLPMA Section 201 to inventory public land resources and other values, including characteristics associated with the concept of wilderness identified as naturalness, solitude, and primitive, unconfined recreation. Wilderness characteristics may be considered in land use planning when BLM determines that those characteristics are reasonably present, of sufficient value (condition, uniqueness, relevance, importance) and need (trend, risk), and are practical to manage (BLM 2003). However, BLM has no authority to establish new WSAs or to report such areas to Congress. BLM can, however, protect areas in their natural state using a wide range of designations or specific RMP objectives. Therefore, in response to this scoping input, and to protect important values present in the CPNM, BLM has considered management prescriptions in specific areas to protect wilderness characteristics, but has not included the establishment of new WSAs as part of any alternative. BLM has agency protective management measures for areas outside of the original Caliente WSA, since there are actions that BLM doesn't have authority to restrict except in the WSAs. For any areas identified for management to maintain wilderness characteristics, BLM would not apply the "non-impairment" standard (Section 603 of FLPMA) or the *Interim Management Policy for Lands under Wilderness Review* (BLM 1995). However, specific management objectives and actions to protect wilderness character are contained in Section 2.13 of this chapter.

2.3 Use of Adaptive Management Process

Secretary of the Interior Order Number 3270 calls for BLM and other Department of the Interior agencies to incorporate adaptive management principles into management plans and programs. The Secretarial Order also directs that *Adaptive Management: The U. S. Department of the Interior Technical Guide* (USDI 2007) be used as the technical basis for implementing adaptive management programs.

Adaptive management recognizes that ecosystems are very complex and understanding of their processes and responses to management actions is limited. Thus, the greatest hurdle to overcome in implementing effective restoration and other management actions is uncertainty regarding their effectiveness. Adaptive management acknowledges that there are incomplete data when dealing with natural resources, and that through continued research and monitoring of management practices, new information will be collected. This new information is evaluated, and a determination is made whether to adjust the strategy accordingly to improve success in meeting plan objectives.

As the *Technical Guide* points out, adaptive management is only warranted when all of the following criteria can be met:

- There is a need to take action in the face of uncertainty.
- There is an opportunity to apply learning.
- The objectives of management are clear.
- The value of reducing uncertainty is high.
- Uncertainty can be expressed in a set of competing testable models.
- A monitoring program design can be put in place with a reasonable expectation of reducing uncertainty.

The CPNM meets all of these parameters, and an adaptive approach to managing the area is already being implemented by the managing partners. The area is a complex and highly variable ecosystem with natural conditions that have been altered by past land uses. Although considerable research and monitoring has been implemented in the area, there is still a relatively high level of uncertainty about the effects of various management treatments for values such as restoring endangered species habitat or increasing native plant cover. This RMP contains clear objectives for management outcomes or "desired future conditions" of the various resources in the Monument. The RMP also lists a suite of initial actions that will be taken in an effort to restore and manage ecosystems to meet the RMP objectives. Some of these actions are listed within Chapter 2, while others are contained in the Conservation Target Table (Appendix C). The predicted outcomes of implementing plan actions and the uncertainty/assumptions associated with their implementation are discussed in Chapter 4 of this RMP (Environmental Consequences). Monitoring is an important component of RMP implementation and will be used to gauge the effectiveness of actions at achieving objectives. Also, the RMP calls for continued support of scientific studies and outside review of resource management programs. These two types of actions will serve as a feedback loop so that managers can evaluate the effectiveness of actions in achieving plan objectives and learn/adjust as needed.

In summary, this RMP is structured so that the managing partners can continue to apply adaptive management principles within the framework of the *Technical Guide*. Adaptive management applications are used most extensively in the Biology program. However, other programs such as Recreation and Cultural Resources Management will make use of adaptive management principles as described in those respective sections. Note that adaptive management does not give managers an open book to implement any action deemed necessary to meet plan objectives. If a proposed approach is outside of the scope of the alternatives evaluated in this RMP, additional environmental documentation, including a possible RMP amendment, would be required.

2.3.1 Use of CPNM Conservation Target Table for Adaptive Management (Appendix C)

Several resource management programs (Biology, Livestock Grazing, and Fire) refer to a Conservation Target Table to describe specific aspects of management program implementation. This table has been developed as an integral part of an adaptive management approach to guide implementation of objectives in this RMP for the protection and benefit of the natural communities and featured species (listed species, large native ungulates, and plant or animal species receiving management emphasis). The objectives listed in the table are derived from and fully support the objectives described in this RMP. The current version of this table is located in Appendix C. The table identifies important ecological factors that influence the health, abundance, and distributions of the natural communities and featured species. This is accomplished by identifying: (1) the important habitat or population parameters that influence the target communities or species, (2) the specific habitat or population indicators or variables to be monitored, (3) the measurable attributes for these variables, (4) the values of these variables that will trigger management actions, and (5) the recommended management actions or prescriptions that may influence habitat suitability or population demographics needed to maintain the target's health, abundance, and distribution goals.

The elements in the table are developed using the best available information obtained from published literature, unpublished reports, monitoring data from within the Monument and other similar habitats, other locations with the range of the featured species, and professional experience/opinion among staff with direct experience in the Monument.

2.3.2 Use of the Conservation Target Table in Implementing RMP Objectives

The Conservation Target Table is the foundation of the adaptive management strategy to be implemented in the Monument. The monitoring of the management actions and their effects to the conservation targets will occur in the following manner:

- The conservation targets (vegetation communities, plant and animal featured species populations, demographics and distributions) will be monitored.
- The variables for the management objectives will be gauged in relation to the desired values of the variable.
- Recommended management prescriptions or actions and constraints to actions (ranging from the hands-off treatments to the applied treatments of prescribed fire, livestock grazing, mechanical or chemical control, and human activities), would be evaluated by monitoring the management objective variables in relation to the implementation of the prescription.
- Changes in the management objective variables among the actions or constraints would determine the management effects.
- As monitoring data are evaluated, the information will be used to determine the success of the management actions or constraints in meeting the specific conservation target objectives and the overall management goals.
- The evaluations and new knowledge about the conservation targets and the management effects would be used to inform future management actions and decisions.

The Conservation Target Table will also be used to describe where or under what conditions in the Monument these RMP management objectives are relevant, where the indicator variables will be monitored, and where the actions or prescriptions will be applied. The basic unit for management is currently at the pasture level, the boundaries of which originated with historic ownership or usage. As needs for species are identified and management actions defined, pasture boundaries may change to reflect the ecological parameters of the species and enable the level of management needed. As a companion to the Conservation Target Table, a pasture management table or matrix will be developed to inform managers where the Conservation Targets are currently relevant based on presence or absence within a pasture. This pasture table or matrix will evolve with the changing pasture boundaries and the knowledge of the Conservation Targets over time and throughout the Monument. The Pasture Management Table can be found in Appendix V.

2.3.3 Incorporating Changes into the Conservation Target Table

The conservation target table and associated pasture/ guideline matrix are considered to be works in progress and will be updated as needed using adaptive management principles outlined in “Adaptive Management US Department of Interior Technical Guide” and authorized under Secretarial Order 3270. The elements of the tables will be subject to ongoing review by the managing partners (BLM, TNC, and CDFG), the scientific community, species experts, the Monument Advisory Committee, the U.S. Fish and Wildlife Service (USFWS), and the public. Changes would be made to the management guidelines (actions or constraints) or the desired values for the indicator variables as new knowledge is gained about the natural communities, the species, the ecological relationships, and management effects. This knowledge would be applied to ongoing and future management objectives and decisions, thus “adapting” the management of the Monument to use the best available information about the natural communities, featured species, and objects to be protected in the Monument.

Information or events that may trigger a change includes new literature, study results, more complete information, monitoring results, new species, new impacts, new locations, changes in law or policy, or input from species experts. The managing partners would review the Conservation Target Table annually to determine if changes are appropriate. Information or events may trigger more frequent reviews. The managing partners may solicit input from species or topic experts. Through consensus, the managing partners may change the Conservation Target Table based on the review. The modified Conservation Target Table will be submitted to the BLM authorized officer for approval. The change would be implemented as soon as any required intermediate steps have been completed, such as NEPA analysis, publication of Federal Register notices, or consultation with the State Historic Preservation Officer (SHPO) or USFWS. The Conservation Target Table would be made available to the public.

Changes in the management guidelines (actions or constraints) or the desired values for the indicator variables in the Conservation Target Table would normally not require an amendment to this plan, while changes to the conservation target management objectives would. Any changes will undergo appropriate level of technical review and further NEPA analysis would be required if they are outside the scope of analysis of this EIS.

2.4 Biological Resources

2.4.1 Introduction

This section highlights management of biological resources including wildlife and associated habitat and vegetation. The Carrizo Plain National Monument Proclamation recognized the intrinsic values of the biological resources of the Monument area as objects to be protected under the designation. Specifically, the Monument Proclamation provides protection for the CPNM as the largest undeveloped remnant of the San Joaquin Valley ecosystem, providing crucial habitat for the long-term conservation of the many endemic plant and animal species that still inhabit the area. The Monument offers a refuge for endangered, threatened, and rare animal species such as San Joaquin kit fox, California condor, blunt-nosed leopard lizard, giant kangaroo rat, San Joaquin antelope squirrel, longhorn fairy shrimp, and Kern primrose sphinx moth. Important populations of pronghorn antelope and tule elk have been reintroduced to the Monument. Rare and sensitive plant species, including California jewelflower, Hoover's woolly-star, San Joaquin woolly-threads, pale-yellow layia, forked fiddleneck, Carrizo peppergrass, Lost Hills crownscale, Temblor buckwheat, recurved larkspur, and Munz's tidy tips occur on the Monument. The Monument was noted as providing crucial habitat for the long-term conservation of the dwindling flora and fauna characteristics of the San Joaquin Valley. BLM is directed, pursuant to applicable legal authorities, to implement the protection of the objects identified above.

FLPMA and BLM policy direct the agency to manage habitat with an emphasis on ecosystems to ensure self-sustaining populations and natural abundance and diversity of wildlife, fish, and plant resources on public lands (BLM Manual Section 6500: Wildlife Management). BLM is further directed to maintain an inventory of wildlife, plant communities, threatened, endangered, and candidate species; support and carry out research necessary for proper and efficient management of wildlife and special status species; and monitor ongoing management actions and determine if habitat management objectives are being met.

The federal *Endangered Species Act* requires BLM to use its authorities to further the purposes of the Act by carrying out conservation programs for listed species and the ecosystems on which they depend. BLM must ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any listed species. It is BLM policy that actions authorized by BLM shall further the conservation of federally listed and other special status species and shall not contribute to the need to list any special status species under provisions of the *Endangered Species Act.* In addition, it is BLM policy that the agency shall carry out management for the conservation of state-listed plants and animals. BLM

will conserve state-listed plants and animals and use its authorities to further the purposes of the State of California rare and endangered species laws and apply such laws to BLM programs and actions to the extent that they are consistent with FLPMA and other federal law.

The USFWS has developed the *Recovery Plan for Upland Species of the San Joaquin Valley, California* (USFWS 1998). This plan identified the CPNM (previously known as Carrizo Plain Natural Area) as being one of several "Core Area of Natural Lands" targeted for protection. The Monument is listed as important for the conservation and recovery of California jewelflower, Hoover's woolly-star, Jared's peppergrass, Temblor buckwheat, San Joaquin woolly-threads, blunt-nosed leopard lizard, giant kangaroo rat, San Joaquin antelope squirrel, San Joaquin kit fox, short-nosed kangaroo rat, Tulare grasshopper mouse, San Joaquin Le Conte's thrasher, Lost Hills crownscale, and Munz's tidy-tips. The San Joaquin Valley Recovery Plan also includes actions to maintain habitat linkages between the CPNM, western Kern County, and the Salinas Valley. The Monument is also important habitat for federally listed Kern primrose sphinx moth, longhorn fairy shrimp, and California condor.

Other federal laws that direct wildlife, plant, and habitat management on BLM lands in the Monument include the *Bald Eagle Protection Act* of 1940, the *Fish and Wildlife Improvement Act* of 1978, the *Migratory Bird Treaty Act* of 1918, and the *Tule Elk Preservation Act* of 1976 (Public Law 94-389).

The State of California, through the California Fish and Game Commission and the California Department of Fish and Game (CDFG), is responsible for managing wildlife populations and establishing hunting seasons and regulations.

2.4.1.1 Use of Ecological Subregions

Section 3.2.1 of Chapter 3 (Affected Environment) describes nine ecological subregions that were identified by the planning team based on similar geography and general ecological characteristics. These subregions provide a context for certain management prescriptions in the alternatives for managing biological resources. Please refer to Section 3.2.1 and Map 3-1 (Carrizo Plain Subregions) for locations of and descriptive information on the subregions listed below:

Caliente Foothills South
Caliente Foothills North
Carrizo Plain North
Carrizo Plain Central
Panorama Hills/Elkhorn Plain
Caliente Mountain North
Caliente Mountain South
Soda Lake
Temblor Range

2.4.1.2 Use of Vegetation Management Toolbox

To achieve a desired resource objective, it may be necessary to modify vegetation abundance, distribution, composition, and/or structure. Examples include creating low structure in core areas, promoting forbs in pronghorn forage areas, pretreatment for restoration projects, elimination of thatch to promote wildflower displays, and weed treatments. The choice of whether to apply a vegetation management tool, or which tool to use, is based on existing conditions, the physical and biological processes at the site, the species targeted, the desired outcome, the type and influence of impacts, and the funding available. Following adaptive management practices such as these, efforts will be made so that the tool employed achieves the desired objective, with a minimum of negative impacts to other resources. Table 2.4-1 sumarizes the vegetation management tools allowed under each alternative, and Table 2.4-2 describes each tool in the vegetation management toolbox.

Table 2.4-1. Vegetation Management Tools Allowed Under Each Alternative

No Action Alternative	Alternative 1	Alternative 2	Alternative 3
Hand removal	Hand removal	Hand removal	Hand removal
Mechanical	Mechanical	Mechanical	Mechanical
Burning		Burning	Burning
Grazing		Grazing	Grazing
Herbicides		Herbicides	Herbicides
Seeding		Seeding	Seeding
Watering		Watering	Watering
Biological control		Biological control	Biological control

2.4.2 Goals, Objectives, and Management Actions Common to All Action Alternatives

2.4.2.1 Goals

- Manage the landscape to enhance the CPNM as a significant unique and undeveloped portion of the once vast San Joaquin Valley ecosystem (which is of crucial importance and provides the context for management).
- Restore and maintain a mosaic of natural communities and successional stages to benefit the biodiversity inherent in the ecosystem, including ecological processes that sustain them. Manage resources to emphasize an increase of native and indigenous species.
- Manage the CPNM in a manner that emphasizes its critical importance for threatened and endangered species conservation and recovery, rare natural communities, and conservation of the regional landscape.
- Identify core geographic areas for endangered species population management and recovery. Within these core areas, endangered species habitat will be a primary management priority relative to other resources and uses.

2.4.2.2 Objectives and Management Actions

All Wildlife and Vegetation Resources

Objective: Design all projects to minimize impacts to wildlife and vegetation.

Management Action:

- Implement the standard operating procedures (SOPs) contained in Appendix O (Biological Standard Operating Procedures) and Appendix P (Standard Operating Procedures for Oil and Gas) for all project work on the Monument.

Rare Plants

Objective: Maintain and enhance viable populations of threatened and endangered and other rare plants on the Monument (see Table 3.2-3). Allow populations to naturally fluctuate (population size and distribution), but prevent from falling below critical levels.

Management Actions

- Map populations of threatened and endangered and other rare plants on the Monument. Map potential rare plant habitat.

Table 2.4-2. Vegetation Management Toolbox

Tool	Methodology / Rationale	Possible Uses
Hand removal (all alternatives)	Hand pulling, hoeing, and digging out targeted individuals or groups of plants. Good for small and specific targets, problematic for large-scale targets, and not effective against certain weed species (such as many perennial herbs).	Hand treatment to eliminate small weed populations, to control specific weed species, and to promote rare plants or restoration plantings by reducing competition from introduced plants.
Mechanical (all alternatives)	Mowing, weed-whipping, cutting (chainsaw), brush removal. Good for small to medium-scale targets, possible negative impacts to habitat by equipment (such as soil compaction, creation of disturbed soils, burrow collapse).	Treatment of fuels for fire control. Removal of thatch build-up to achieve low-structure habitat in core areas and as pretreatment before restoration seeding. Cutting to remove exotic tree species and pruning shrubs and trees in campgrounds or around Monument facilities. Mowing to create temporary trails in grassland habitat and as maintenance around signs and other Monument infrastructure.
Burning (alternatives 2 and 3 only)	Flaming, controlled burns. Good for small to large-scale targets, creates a mosaic of treatments across a landscape. Possible negative impacts to animals and fire-sensitive plants or if fire escapes project boundaries. Not effective against certain weeds.	Flaming specific weed targets and as a general weed treatment immediately before restoration seeding. Burning to remove thatch build-up to promote wildflower displays and forb production for pronghorn, to achieve low-structure habitat in core areas, and as a pretreatment for restoration seeding. Burning to remove excess tumbleweeds.
Grazing (alternatives 2 and 3 only)	Variables include type of livestock, timing and duration of treatment, stocking rates, and frequency. Good for medium to large-scale targets, creates a mosaic of treatments across a landscape, can be targeted on specific weed species, is relatively cost-effective, and has a wide range of treatment variables. Possible negative impacts to native species, biological soil crusts, and to habitat (such as soil compaction, creation of disturbed soils, burrow collapse).	Remove specific weed targets. Remove thatch build-up to promote wildflower displays and forb production for pronghorns, to achieve low-structure habitat in core areas, and as a pretreatment for restoration seeding. Remove biomass to achieve low-structure habitat in core areas.
Herbicides (alternatives 2 and 3 only)	Spraying individual plants or populations, sometimes in conjunction with stump-cutting. Spraying specific project areas. Good for small to medium projects, cost-effective weed control, essential for eradication of some problematical species. Negative impacts related to potential human and ecological exposures to chemicals.	Target spraying to eradicate or control exotic weeds. Area spraying to eliminate annual exotics immediately before restoration seeding or as a means to promote native species.
Seeding (alternatives 2 and 3 only)	Hand-seeding, seeding by equipment, planting plugs or individual plants, inoculation with cryptogamic crust species or mycorrhizae. Good for small to large-scale projects.	Hand-seeding and planting small restoration projects or to introduce seed source islands within partially restored native habitat. Seeding with a range drill or other agricultural machinery for large-scale restoration of native species. Inoculation to restore cryptogamic crusts or help plant establishment.
Watering (alternatives 2 and 3 only)	Supplemental water, drip irrigation	Supply water to increase success of restoration efforts, to enhance seed production, and for ornamental or historical plantings.
Biological Control (alternatives 2 and 3 only)	Release of specific organisms on target populations. Good for large-scale targets. Possible impacts if organism shifts to new host.	Release of biological control organisms to control widespread and relatively common nonnative species.

- Monitor to confirm continued presence of rare plant populations and status of pollinator communities. Identify rare plant habitat parameters, pollinators, and pollinator habitat (nesting sites, additional foraging areas, and others).
- Support research that identifies and defines factors that influence population trends of target species. Support research on the biology/ecology of target species.
- Protect rare plants and associated pollinator habitat. Manage rare plants and rare plant habitat as identified in the Conservation Target Table and using tools as outlined in the Vegetation Management Toolbox.
- Design other management actions to avoid direct impacts. If a threat is observed, take action to protect the species or habitat. Reduce competition from weedy species. Modify, restrict, or prohibit livestock grazing if needed to protect rare plant habitat. If necessary, fence known sites to preclude damage.
- Promote seed bank recharge. Restore or establish populations in suitable habitats, including new population sites and in previously cultivated or degraded areas. Store germplasm with the Center for Plant Conservation national collection of endangered plants.

Core Area Threatened and Endangered Animals

Objective: Maintain and enhance viable populations within core areas of giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel. Within the core areas, allow the populations of these target species to naturally fluctuate up and down in terms of number and distribution, but initiate management actions when populations approach target minimums (population threshold values) (see Appendix C, Conservation Target Table).

Management Actions

- Identify and map core areas for giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel (core area species). Preliminary core areas are shown on Map 3-2, Special Status Animals. Focus habitat management for giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, San Joaquin antelope squirrel, and mountain plover on these core areas. Manage core areas so they provide a "safety net" to maintain viable populations in all years (within management capability) and to prevent core area species from disappearing from the Monument. Core areas are determined by having persistent populations of the core area species, having suitable habitat in most years, being of a size that can be effectively treated with vegetation / habitat management prescriptions when required, and being of a size that has a high likelihood of maintaining a viable population of the core area species when vegetation management is applied.
- Monitor populations to determine trends and further define minimum population threshold values to identify when to take management actions. If populations approach target minimums, initiate management actions depending on species' characteristics and specific factors influencing population trends as identified in the Conservation Target Table.
- Support research that identifies and defines factors that influence population trends of target species. Support research on the biology/ecology of target species.
- Manage core area habitat to promote the more open, desert-like structure favored by the core area species. In those years when core area species populations are low and vegetation structure is above optimum, as identified in the Conservation Target Table (Appendix C), use the vegetation management tools included in the Vegetation Management Toolbox. (Note that Alternative 3 would allow for livestock grazing management in two Section 15 pastures that also contain core areas under the guidelines found in Appendix U).

- Take measures to reduce mortality of target species, such as reducing vehicle strikes on roads within core areas, removing problem raptor perches, and maintaining escape cover.
- Reestablish populations in core areas, if necessary, through translocation

Viable Populations of Animals

Objective: Maintain or increase viable populations of special status, declining, or unique species such as bats (in the Caliente Foothills North, Carrizo Plain Central, Caliente Mountain South, and Caliente Mountain North subregions), burrowing owls, fairy shrimp (in the Caliente Foothills South, Carrizo Plain Central, and Soda Lake subregions), spadefoot toads (in the Caliente Foothills South, Carrizo Plain Central, and Soda Lake subregions), sphinx moths (in the Caliente Foothills South and Carrizo Plain Central subregions) and Le Conte's thrasher (in the Carrizo Plain Central and Panorama Hills/Elkhorn Plain subregions). For giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel, see the alternative-specific non-core area threatened and endangered animals objectives and management actions.

Management Actions

- Monitor populations and assess habitat quality and potential or actual threats. Examples: Periodically monitor known bat roosts to determine continued use. Periodically survey for burrowing owls. Check certain known locations for spadefoot toad reproduction and fairy shrimp presence when appropriate conditions exist. Collect information on water quality, shrimp and toad demographics, and other parameters. Survey for sphinx moth adults, larvae, and host plants when appropriate conditions exist.
- Support research and education on special status, declining, or unique species. Focus efforts on topics useful in formulating management actions and to promote conservation.
- Manage habitat (vegetation and features) to provide suitable areas for essential activities such as roosting, nesting, aestivation, and reproduction of target species. Examples: Protect natural bat roosts, prolong the usefulness of important human-made roosts, and construct additional roosts. Protect important bat roosts by grates or other means to limit human disturbance. Ensure accessible water is available near known and suspected bat roosts. Ensure adequate burrows are available for burrowing owls and take measures to protect against vehicle strikes. Protect vernal pools and sag ponds that provide fairy shrimp and spadefoot toad habitat. Maintain current conditions while improving knowledge base and modify management to reflect new information. Design vernal pool monitoring to detect negative changes (such as reduced fairy shrimp or spadefoot toad numbers, altered hydrology, or detrimental nonnative species) early and take action to remedy negative changes. Protect sphinx moth habitat from surface impacts (such as livestock grazing, horses, walking) during critical stages of reproduction and development. Maintain known saltbush stands used for nesting and roosting by Le Conte's thrasher.

Avian Species

Mountain Plover Objective: Provide suitable habitat for wintering mountain plover in Panorama Hills/Elkhorn Plain, Carrizo Plain Central, and Soda Lake subregions.

Mountain Plover Management Actions

- Conduct annual surveys for mountain plovers
- Identify and map core areas for mountain plover based on historical use patterns. Preliminary core areas are shown on Map 3-2, Special Status Animals. Focus habitat management for mountain plover to core areas. Manage core areas so that a minimum of one area of suitable habitat is provided within

the Monument boundary. More than one area of suitable habitat may be provided. Update core area locations based on mountain plover use patterns.

- Apply fall vegetation management when necessary using a variety of tools as described in Table 2.4-2, Vegetation Management Toolbox. When possible, overlap mountain plover treatment areas with blunt-nosed leopard lizard treatment areas.

California Condor Objective: Maintain unobstructed condor habitat in the Caliente Mountain North, Caliente Mountain South, and Temblor Range subregions. Maintain suitable foraging habitat for condors in the Panorama Hills/Elkhorn Plain, Carrizo Plain Central, and Caliente Foothills South subregions.

California Condor Management Actions

- Restrict or prohibit the placement of new transmission lines, towers, or other potentially disruptive constructs in condor habitat.
- Support USFWS in implementing recovery actions, such as establishing supplemental feeding stations or condor monitoring.

Roosting Shorebirds, Cranes, Curlews, and Waterfowl Objective: Maintain roosting habitat for shorebirds, cranes, long-billed curlews, and waterfowl in the Soda Lake subregion.

Roosting Shorebirds, Cranes, Curlews, and Waterfowl Management Actions

- Conduct annual surveys for long-billed curlews or other species.
- Support research to determine factors affecting roosting and foraging habitat quality and take appropriate management actions if habitat deteriorates.
- Protect roosting habitat at Soda Lake from human disturbance. Design facilities and manage public access to minimize detrimental interaction between roosting birds and the public.

Habitat Structure Diversity

Objective: Maintain or increase the diversity of habitat in terms of structure, composition, and patchiness.

Management Actions

- Across the Monument, monitor the distribution, amount, and structure of shrub and woodland communities; the structure (height and density) of the herbaceous understory; and the general species composition of the plant communities. Develop spatial data (maps) to evaluate the distribution and extent of these characteristics in meeting management objectives.
- Manage lands to provide a variety and mosaic of vegetative assemblages, successional stages, habitats, and structure for the purposes of increasing plant and animal species diversity. For active management, use vegetation management tools as described in Table 2.4-2, Vegetation Management Toolbox. Initial focus would be on lands previously degraded by dryland farming or overgrazing.

Linkage

Objective: Maintain the linkage of natural lands in the CPNM to the San Joaquin Valley by preserving the intact nature of the Temblor Range to maintain genetic and population linkages for San Joaquin kit fox, giant kangaroo rat, San Joaquin antelope squirrel, and other species.

Management Actions

- Maintain suitable habitat in the Temblor Range subregion. Manage public use to prevent habitat degradation and fragmentation.
- Identify and protect important linking habitat through acquisition or other methods.

Riparian Areas

Objective: Restore all riparian areas, seeps, and springs to proper functioning condition or better (Caliente Mountain South, Caliente Mountain North, Temblor Range, Caliente Foothills South, Caliente Foothills North subregions).

Management Actions

- Restore degraded riparian areas using a variety of methods. Examples: fence to exclude livestock, plant willows to stabilize channels, remove alterations/redesign developed springs, seed or plant with appropriate native species.
- Take measures to limit the deleterious actions of wild pigs, such as monitoring, fencing, and hunting,
- Identify and protect riparian areas that may appear only in very wet years. Examples: fence areas to prevent degradation and realign roads to avoid sites.

Soda Lake

Objective: Maintain the ecological processes and hydrologic vitality (quality, quantity, and flow patterns) of Soda Lake, its playas, and associated swale system.

Management Actions

- Monitor water flow patterns, potential threats to water quality, and general ecosystem health of the Soda Lake system. Respond to threats by management actions tailored to the specific problem (for example, use fencing to discourage dump sites and off-road activity).
- Identify adjacent lands important in maintaining water quality for the Soda Lake system. Coordinate with adjacent landowners to eliminate or minimize contamination (for example, clean up recent dumps, pursue conservation easements or land acquisition).
- Eliminate salt cedar and all other problematic nonnative species from the Soda Lake system.
- Design any new trails, pull-outs, parking areas, and other facilities to minimize disruption of ecological processes and hydrologic vitality.

Vernal Pools and Sag Ponds

Objective: Maintain the ecological processes and hydrologic vitality of the Monument's vernal pools and sag ponds (primarily Caliente Foothills South and Soda Lake subregions).

Management Actions

- Monitor water chemistry, species composition, and other important ecological factors. Identify and map vernal pool sites, including those that appear only in years of excessive precipitation (for example, El Niño years). Work to understand hydrological parameters important in maintaining pool ecosystems. Better define habitat characteristics for pools and determine if they have the potential to form in areas that have previously been cultivated.

- Determine the role of livestock grazing in maintaining characteristics necessary for the health and viability of fairy shrimp populations.
- Take measures to eliminate nonnative species (such as pepperweed, Russian knapweed and bullfrogs) from vernal pools and surrounding areas.

Research and Inventory

Objective: Improve knowledge of the species present on the Monument and understanding of the natural and ecological processes that influence local ecosystems.

Management Actions

- Inventory taxa that are not well studied or understood, such as insects, other invertebrates, fungi, lichens, and bryophytes. Continue updating existing inventories (plants, mammals, birds, and 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 within the Monument on the biology of CPNM species.
- Establish and maintain non-managed areas to compare the effects of purely natural processes with those influenced by agency management actions. Investigate the potential of setting aside "hands-off" areas where little to no management actions would occur. One management exception may be for the treatment of noxious or problematic weedy species.

2.4.3 Alternative 1 Objectives and Management Actions

2.4.3.1 Native Plants

Objective: Rely only on natural process to maintain ecologically important plant communities and populations. Examples include native perennial grasslands, alkali sink, saltbush scrub, upper Sonoran sub-shrub scrub, vernal pools, bulb plants, native grasses, annual and perennial herbs, wildflowers, biological crusts, Alvord and blue oaks, yuccas, saltbush, ephedra, and manzanita.

Management Actions

- Map ecologically important plant communities and populations. For communities, follow nomenclature system developed by Sawyer and Keeler-Wolf (1995).
- Monitor target plant communities and populations to determine status and trends. Identify potential and current threats.
- Support research related to the management of CPNM plant communities and populations.
- Prohibit livestock grazing in areas of target plant resources. Do not mow, burn, nor reseed to improve native plant habitat.
- Allow plant resources to respond to fire with minimal intervention when other Monument objectives are not threatened.
- Control or eradicate noxious weeds (CDFA 2007, CDFA 2008) using only hand or mechanical methods (Table 2.4-2). Allow populations of other non-native plants to respond to natural processes.

2.4.3.2 Non-Core Area Threatened and Endangered Animals

Objective: Maintain viable populations of giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel (target species) within the Monument. Allow these species' populations in non-core areas to naturally fluctuate, in terms of number and distribution. Allow target populations to disappear and reappear in non-core portions of the Monument, but take action to prevent a target species from completely disappearing from the Monument.

Management Actions

- Monitor populations directly or use surrogate values to estimate target population trends and abundance. Do not use domestic livestock in habitat areas. If Monument-wide disappearance threshold is approached, initiate management actions depending on species' characteristics and specific factors influencing population trends.
- Do not apply livestock grazing or fire to manage non-core areas.

2.4.3.3 Native Ungulates

Pronghorn

Objective: Allow natural conditions to determine the quality of pronghorn fawning and foraging habitat in the Caliente Foothills North and Carrizo Plain North subregions and, by extension, pronghorn numbers and distribution on the Monument. Allow population to disappear if dictated by natural conditions.

Management Actions

- Support CDFG in monitoring CPNM pronghorn populations via continuing aerial reconnaissance and habitat studies. Support CDFG in initiating new studies on pronghorn diet, habitat use, population dynamics, and biology. Potential research tools include radiotelemetry, Global Positioning System (GPS) collars, and other monitoring equipment.
- Maintain areas of pronghorn habitat solely by natural means. Eliminate livestock grazing from pastures identified as key pronghorn habitat. Do not engage in active restoration. Do not mow, burn, or reseed to improve pronghorn habitat. Allow natural water systems to vary with the climate. Do not provide artificial water or supplemental feed.
- Promote herd travel across the landscape by removing all livestock fences not required to protect sensitive resources such as cultural sites.
- Protect herd by measures to reduce vehicle collisions (for example, through speed limits, public education, and signs; by moving fences back from roads; by mowing road edges).
- Do not augment existing pronghorn population.

Tule Elk

Objective: Allow natural conditions to determine the quality of elk calving and foraging habitat on the Monument and, by extension, elk numbers and distribution. Allow population to disappear if dictated by natural conditions.

Management Actions

- Support CDFG in efforts to monitor CPNM elk populations via continuing aerial reconnaissance and habitat studies. Support CDFG in continuing studies to determine elk diet, habitat use, population dynamics, and biology. Potential research tools include radiotelemetry, GPS collars, and other monitoring equipment.

- Maintain areas of elk habitat solely by natural means. Do not engage in active restoration. Do not mow, burn, or reseed to improve elk habitat. Eliminate livestock grazing from pastures identified as key elk habitat. Allow natural water systems to vary with the climate. Do not provide artificial water or supplemental feed.
- Protect herd by measures to reduce vehicle collisions (for example, through speed limits, public education, and signs; by moving fences back from roads; by mowing road edges).
- Do not introduce additional tule elk.

2.4.3.4 Avian Species

Nesting Sites and Habitat

Objective: Allow natural conditions to determine availability of suitable nesting, roosting, and foraging habitat for raptors (Caliente Mountain South, Caliente Mountain North subregions), ground-nesting birds, such as grasshopper sparrow and short-eared owl (Caliente Foothills North, Carrizo Plain North, Soda Lake subregions), and migratory birds (Caliente Foothills South, Caliente Foothills North, Carrizo Plain North, Soda Lake subregions).

Management Actions

- Conduct annual surveys for wintering raptors. Survey for additional species (such as tricolored blackbirds) when possible.
- Protect nesting raptors at Selby Rocks and Painted Rock from human disturbance.
- Allow nonnative trees and human structures used by birds to be removed.
- Allow vegetation to respond only to natural forces with no vegetation management (Carrizo Plain North, Panorama Hills/Elkhorn Plain, Carrizo Plain Central).
- Do not apply livestock grazing and fire to manage bird habitats.

Upland Game Birds

Objective: Allow natural conditions to determine availability of suitable habitat for upland game birds, with an emphasis on natural water sources (Caliente Mountain North, Caliente Mountain South, Temblor Range).

Management Action

- Remove artificial water developments (such as guzzlers) as they become non-functional.

2.4.3.5 Nonnative Animals and Captive-Held Native Animals

Objective: Control the spread of nonnative animals. Minimize disease transmission, harassment, and competition from nonnative animals and native animals that have been held in captivity.

Management Actions

- Control and eliminate, when possible, nonnative animals such as wild pigs and honey bees that may have negative impacts on habitat or other species.
- Prohibit the release of nonnative animals.
- Prohibit the release of native animals that have been held in captivity unless the release is required to meet the Monument's objectives, such as augmentation or reestablishment of an endangered or

threatened species like the Kern primrose sphinx moth; or reestablishment of giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, or San Joaquin antelope squirrel in core areas.

- Take protective measures if pets from visitors or private lands are causing wildlife depredation or other ecological damage. Examples: Require pets to be leashed or controlled at all times, require pet owners to remove fecal material, and contact owners if free-roaming pets from private lands are causing impacts.

2.4.3.6 Nonnative Plants

Objective: Control the spread of noxious weeds (CDFA 2007, CDFA 2008) but allow the distribution and population size of other introduced species to be dictated by natural processes.

Management Actions

- Monitor to detect new populations of noxious weeds. Aggressively work to eliminate founder populations using only hand or mechanical methods (Table 2.4-2).
- Work to eradicate established populations of target weed species such as yellow star thistle, saltcedar, hoary cress, and Russian knapweed, using only hand or mechanical methods (Table 2.4-2).
- Implement measures to minimize the spread of weeds by livestock and equestrian activities (for example, encourage weed-free husbandry, prohibit cleaning of horse trailers on the Monument, encourage the use of weed-free hay, monitor corrals and holding pens, and other measures).

2.4.3.7 Fire

Objective: Maintain the natural role of fire in the landscape where feasible.

Management Actions

- Manage fire (prescribed and wildfire) in the Caliente Mountain North subregion to mimic the natural return interval.
- Take measures to increase our understanding of native people's use of fire to aid in current management applications.

2.4.3.8 Protected Land

Objective: Increase the amount of protected land for rare species and important ecological habitats.

Management Action

- Acquire lands or interest as parcels become available (willing seller contacts BLM, county tax parcel becomes available, conservation organization such as Packard Foundation contacts BLM, or similar situations).

2.4.4 Alternative 2 Objectives and Management Actions (Preferred Alternative)

2.4.4.1 Native Plants

Objective: (Same as Alternative 3) Maintain, increase, and restore ecologically important plant communities and populations. Examples include native perennial grasslands, alkali sink, saltbrush scrub, upper Sonoran sub-shrub scrub, vernal pools, bulb plants, native grasses, annual and perennial herbs, wildflowers, biological crusts, Alvord and blue oaks, yuccas, saltbush, ephedra, and manzanita.

Management Actions

- Map ecologically important plant communities and populations. For communities, follow nomenclature system developed by Sawyer and Keeler-Wolf (1995).
- Monitor target plants and communities to determine status and trends. Identify potential and current threats. Initiate management actions to abate threats, increase populations of target species, and benefit native plant communities. Protect from livestock grazing, if necessary. Control nonnative species. Manage select native plant resources and habitat as identified in the Conservation Target Table.
- Support research related to the management of CPNM plant communities and individual plant species. Initiate studies to define important community parameters and design threshold values for management actions. Support research on the biology/ecology of target species.
- Maintain and restore plant populations and communities, especially in areas of degraded habitat (for example, previously cultivated fields). Supplement natural processes with an active restoration program. Use vegetation management tools as described in Table 2.4-2, Vegetation Management Toolbox. Choose the tool that achieves the desired objective, with a minimum of negative impacts to other botanical resources. Because green season grazing by cattle has been shown to have a number of undesirable effects on native vegetation and habitat, its use as a tool to promote botanical resources would have limited application. Grazing may still be a useful tool under other prescriptions.
- Restore native grasslands by including seeds or propagules of bulbs and other perennial herbs in the restoration of previously cultivated or degraded fields. Increase seed and other material for restoration by cultivating target species off-site under agricultural conditions. Work to limit wild pig damage to bulbs and herbaceous perennial plants.
- Increase saltbush and other shrub communities by management and active restoration. Protect saltbush and other vulnerable shrub communities from fire. Restrict livestock grazing in saltbush and other shrub communities, unless necessary to meet important biological objectives. Restrict livestock grazing in saltbush recruitment years. Establish new saltbush and shrub populations in appropriate sites. Seek to reestablish landscape water flow patterns (for example, alluvial fans disrupted by roads) to promote shrub recruitment.
- Restore blue and Alvord oak habitat and facilitate recruitment of new trees. Protect oak trees impacted by livestock grazing or eliminate livestock grazing from these areas. Restore leaf litter mulch and soil functions beneath tree canopies and inoculate with mulch/soil organisms from healthy oaks. Establish new oak trees in areas previously shown to have trees and in other appropriate sites. Provide supplemental water if necessary to ensure recruitment success. Protect oaks from devastating fires.
- Protect and restore vernal pool vegetation and crust communities in ecologically appropriate sites. Minimize negative impacts by livestock, horse, or human travel. Initiate studies to determine effects of livestock grazing on vernal pool vegetation and Carrizo crust communities and the feasibility of establishing/reestablishing vernal pools and crust communities in previously cultivated, overgrazed, or otherwise impacted areas. Undertake crust restoration, if practicable.
- Protect mosses and lichens at rock outcrops that receive regular visitation, such as Saucito Rocks. Take actions, such as education and signing, to prevent new trails that damage moss or lichen communities.

2.4.4.2 Non-Core Area Threatened and Endangered Animals

Objective: Maintain viable populations of giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel (target species) within the Monument, with emphasis on the subregions listed in Table 2.4-3.

Table 2.4-3. Target Species and Their Ecological Subregions, Alternative 2

	Caliente Mountain South	Temblor Range	Panorama Hills / Elkhorn Plain	Carrizo Plain Central	Carrizo Plain North	Soda Lake	Caliente Foothills South
Giant kangaroo rat	X	X	X	X	X		
Blunt-nosed leopard lizard	X		X	X			X
San Joaquin kit fox	X		X	X	X	X	
San Joaquin antelope squirrel	X	X	X	X	X	X	

Allow the populations of these target species to naturally fluctuate, in number and distribution, but take action to prevent populations from disappearing from the Monument.

Management Actions

- Monitor populations to determine trends and further define minimum population threshold values.
- If necessary to prevent target species populations from disappearing from the Monument, take action in non-core habitat in addition to taking action in core habitat as identified in the Appendix C, Conservation Target Table. The decision to apply management outside the core area, and what type of management to use, would follow the logic outlined in Figure 2.4-1. Specific management actions would be based on evaluations of core area populations, the effectiveness of current management, and whether target animal populations are responding to current management.
- Encourage partnerships with private landowners within habitat areas to manage target populations and habitat in concert with BLM goals.

2.4.4.3 Native Ungulates

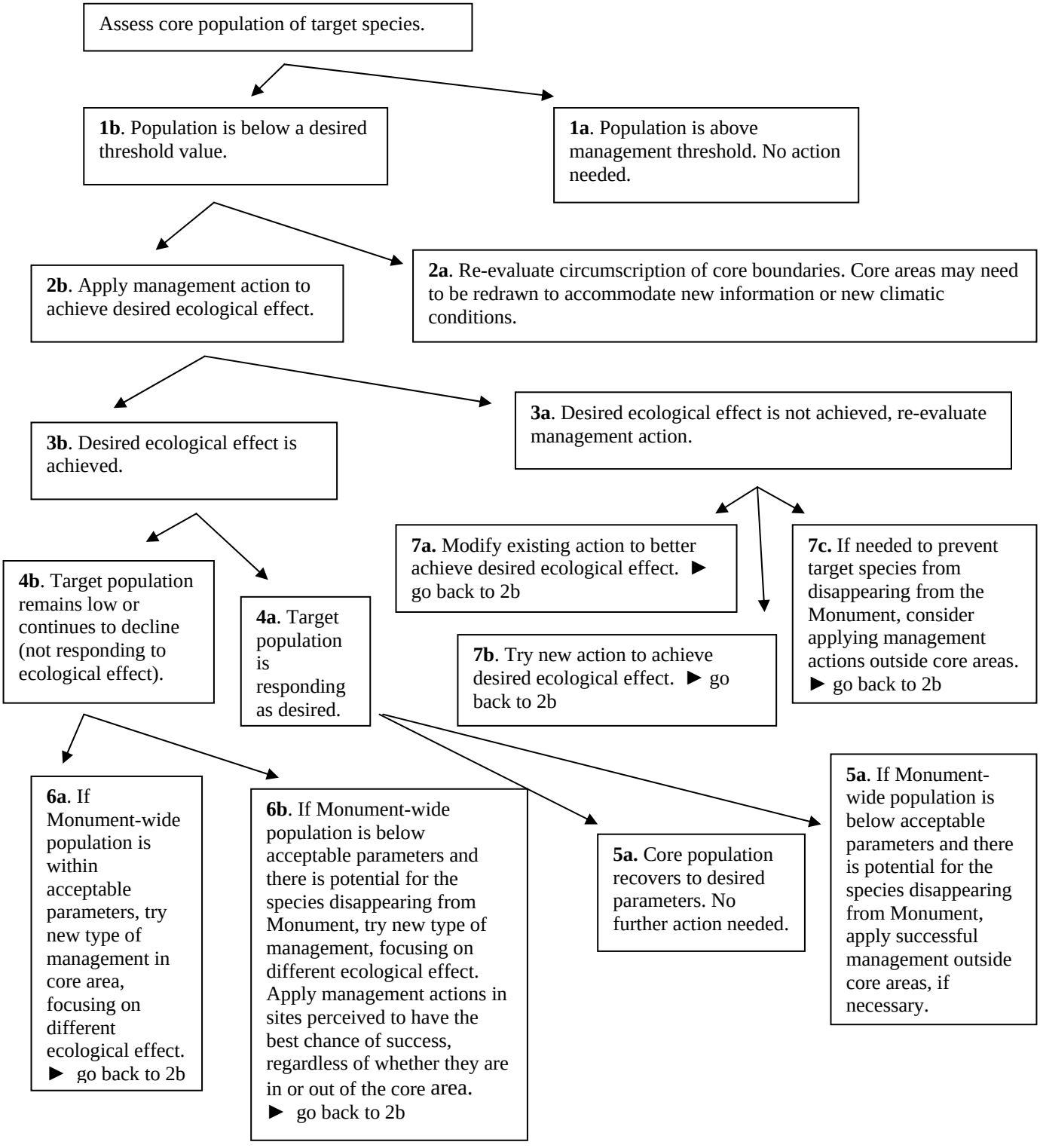
Pronghorn

Objective: Develop and maintain a CPNM herd of 250 pronghorn. Implement management actions to improve the quality of fawning and foraging habitat.

Management Actions

- Support CDFG in efforts to monitor CPNM pronghorn populations via continuing aerial reconnaissance and habitat studies. Support CDFG in initiating new studies to determine pronghorn diet, habitat use, population dynamics, and biology. Potential research tools include radiotelemetry, GPS collars, and other monitoring equipment.
- Maintain and improve areas of pronghorn fawning and foraging habitat in the Caliente Foothills North and Carrizo Plain North subregions adequate to support 250 pronghorn. Allow livestock grazing in key pronghorn habitat only as identified in the Appendix C Conservation Target Table.

Figure 2.4-1. Decision Tree for Management of San Joaquin Valley Target Species in Non-Core Areas



- Include shrubs, tall forbs, and perennial native grasses in restoration seed mixes to provide mosaic of forage resources, habitat structure, and adequate fawning cover (Carrizo Plain North). Promote forb production by vegetation treatments (for example, prescribed fire to remove accumulated dead annual grasses). Maintain critical natural and man-made water sources year-round. Provide supplemental feed only if necessary to maintain a viable population.
- Promote herd travel across the landscape by modifying all fences to allow animal passage underneath. Realign or remove fencing as identified in the Conservation Target Table.
- Protect herd by measures to reduce vehicle collisions (for example, with speed limits, public education, and signs; by moving fences back from roads; by mowing road edges).
- Allow the introduction of pronghorn from other areas if necessary to achieve herd objectives, as long as CPNM habitat is adequate to support target population.

Tule Elk

Objective: Provide and improve calving and foraging habitat in the Monument adequate to support a CPNM-based herd of 500 tule elk.

Management Actions

- Support CDFG in their efforts to monitor CPNM elk populations via continuing aerial reconnaissance and habitat studies. Support CDFG in their continuation of studies to determine elk diet, habitat use, population dynamics, and biology. Potential research tools include radiotelemetry, GPS collars, and other monitoring equipment.
- Focus initial actions to maintain and improve areas of elk habitat in the Caliente Foothills North and Carrizo Plain North subregions. Allow livestock grazing in pastures identified as key calving and foraging habitat only as identified in the Conservation Target Table. Include shrubs, tall forbs, and perennial native grasses in restoration seed mixes to provide a mosaic of forage resources, habitat structure, and adequate calving cover. Maintain adequate acreage of tall grassland habitat within the Carrizo Plain North subregion and restore native bunchgrass communities in previously cultivated areas. Manage habitat to promote native forage species. Maintain critical natural and man-made water sources year round.
- Protect herd by measures to reduce vehicle collisions (for example, with speed limits, public education, and signs; by moving fences back from roads; by mowing road edges).
- Introduce tule elk from other areas, if needed to achieve herd objectives as long as CPNM habitat is adequate to support target population.

2.4.4.4 Avian Species

Nesting Sites and Habitat

Objective: (Same as Alternative 3) Maintain or improve nesting, roosting, and foraging habitat for raptors (Caliente Mountain South, Caliente Mountain North subregions) and ground-nesting birds such as grasshopper sparrow and short-eared owl (Caliente Foothills North, Carrizo Plain North, Soda Lake subregions), and migratory birds (Caliente Foothills South, Caliente Foothills North, Carrizo Plain North, Soda Lake subregions). Maintain or improve wintering habitat for raptors.

Management Actions

- Conduct annual surveys for wintering raptors. Occasionally survey for additional species (such as tricolored blackbirds).
- Conduct inventories to determine raptor nesting sites
- Protect nesting raptors from human disturbance at Selby Rocks, Painted Rock, and other nesting locations, but allow actions to protect rock art from bird excrement. Examples: limit public access to sensitive sites during nesting season, post signs and restrict climbing on rocks during nesting season.
- Allow certain nonnative trees and human structures to remain in place as habitat for birds. Construct new structures or plant additional trees in appropriate locations such as established major campgrounds and Monument buildings. Select species that are native to the area or are non-invasive and historically appropriate (such as black walnut).
- Support research to understand regional importance as a nesting and wintering site for raptors and ground-nesting birds.
- Apply a variety of treatments (mowing, livestock grazing, burning, native planting and others as described under Table 2.4-2, Vegetation Management Toolbox) to create a mosaic of habitat types and structures to provide for a variety of species as necessary or as warranted.
- Livestock grazing within the Carrizo Plain North subregion will be done in a manner that promotes shrubs, tall forbs, and perennial native grasses as identified in the Conservation Target Table.
- Discourage use of polypropylene twine at gates and other facilities in the Monument to prevent its use as a nesting material and potential entanglement of birds. Remove and replace existing polypropylene twine at gates and facilities.
- Take measures – such as those described in *Suggested Practices for Avian Protection On Power Lines, The State of the Art in 2006* (Avian Power Line Interaction Committee 2006) – to minimize bird mortalities caused by electrocution along power lines within the Monument (Caliente Mountain North, Caliente Mountain South, Temblor Range).

Upland Game Birds

Objective: (Same as Alternative 3) Maintain suitable habitat for upland game birds and allow for continuation of existing artificial water sources.

Management Action

- Allow maintenance and replacement of existing artificial water developments, such as guzzlers. New water developments may be allowed if proposed by CDFG and compatible with biological, cultural, and wilderness objectives.

2.4.4.5 Nonnative Animals and Captive-Held Native Animals

Objective: Control the spread of nonnative animals. Minimize disease transmission, harassment, and competition from nonnative animals and from native animals that have been held in captivity.

Management Actions

- Control and eliminate, when possible, nonnative animals such as wild pigs and honeybees that may have negative impacts on habitat or other species. Potential methods to control pigs include hunting, fencing, and trapping. Potential methods to control honeybees include physical removal of hives, entombment, traps, and poison bait stations.

- Prohibit the release of nonnative animals except for the use of approved biocontrol agents or the authorized use of livestock.
- Prohibit the release of native animals that have been held in captivity unless the release is required to meet Monument objectives, such as augmentation or reestablishment of an endangered or threatened species like the Kern primrose sphinx moth; reestablishment of giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, or San Joaquin antelope squirrel in core areas; or the release of pronghorn or elk if necessary to meet herd objectives.
- Take protective measures if pets from visitors or private lands are causing wildlife depredation or other ecological damage. Examples: Require pets to be leashed or controlled at all times, require pet owners to remove fecal material, and contact owners if free-roaming pets from private lands are causing impacts.

2.4.4.6 Nonnative Plants

Objective: (Same as Alternative 3) Control the spread of noxious weeds (CDFA 2007, CDFA 2008) and other nonnative plants.

Management Actions

- Follow integrated pest management (IPM) principles (BLM 1992). Each infestation will be evaluated as to the best control methods. Criteria include growth characteristics, seed production and dispersal, life history stage, size of infestation, difficulty of control, and previous control methods. Depending on these characteristics, any of the methods identified in Table 2.4-2, Vegetation Management Toolbox, may be employed. Monitor to determine effectiveness of control measures.
- Monitor to detect new nonnative populations and aggressively work to eliminate founder populations before they can spread.
- Work to eradicate target weed species such as yellow star thistle, bull thistle, saltcedar, hoary cress, and Russian knapweed (Table 3.2-4). Control and eradicate tree-of-heaven and, for plantings that have cultural or biological importance, replace with native or historically acceptable, but non-invasive species such as black walnut. Work on landscape-wide methods for controlling widespread species such as Russian thistle and horehound.
- On a landscape level, design and implement measures to suppress nonnative annual grasses and herbs. Seed with native species, as applicable.
- Implement measures to minimize the spread of weeds by livestock and equestrian activities (for example, encourage weed-free husbandry, prohibit cleaning of horse trailers on the Monument, encourage the use of weed-free hay, monitor corrals and holding pens).

2.4.4.7 Fire

Objective: (Same as Alternative 3) Maintain the natural role of fire in the landscape where feasible.

Management Actions

- Manage fire (prescribed and wildfire) in the Caliente Mountains North subregion to mimic natural return interval.
- Use fire as a habitat management tool to promote native species.
- Take measures to increase our understanding of native people's historic use of fire and historic fire return intervals to aid in current management applications.

2.4.4.8 Protected Land

Objective: (Same as Alternative 3) Direct acquisition efforts to acquire lands with important biological resources, especially those that are poorly represented in public ownership.

Management Actions

- Acquire lands by donation, compensation, exchange, or purchase. Lands will be acquired based on availability, biological or cultural values, and management needs.
- Identify target inholdings. Encourage sale or transference of target properties through a variety of methods/incentives.
  - Primary focus would be to acquire property that supports habitat and populations of species that are poorly represented on public lands such as sphinx moth and California jewelflower.
  - Secondary focus would include properties with important ecological characteristics (for example, Soda Lake and playa system) that are potential core areas for the San Joaquin suite of rare species (giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel), or that support other important CPNM species (spadefoot toads, fairy shrimp, mountain plover, and rare plants).
- Target inholdings that are important in maintaining the linkage between the CPNM and the San Joaquin Valley.
- Target other inholdings that may have management needs or risk of development or occupancy.
- Develop and maintain a geographic information system (GIS) database showing the location of target resources to facilitate acquisition efforts

2.4.5 Alternative 3 Objectives and Management Actions

2.4.5.1 Native Plants

Objective: Maintain, increase, and restore ecologically important plant communities and populations. Examples include native perennial grasslands, alkali sink, saltbrush scrub, upper Sonoran sub-shrub scrub, vernal pools, bulb plants, native grasses, annual and perennial herbs, wildflowers, biological crusts, Alvord and blue oaks, yuccas, saltbush, ephedra, and manzanita.

Management Actions

- Map ecologically important plant communities and populations. For communities, follow nomenclature system developed by Sawyer and Keeler-Wolf (1995).
- Monitor target plants and communities to determine status and trends. Identify potential and current threats. Initiate management actions to abate threats, to increase populations of target species, and to benefit native plant communities. Protect from livestock grazing, if necessary. Control nonnative species. Manage select native plant resources and habitat as identified in the Conservation Target Table.
- Support research related to the management of CPNM plant communities and individual plant species. Initiate studies to define important community parameters and design threshold values for management actions. Support research on the biology/ecology of target species.
- Maintain and restore plant populations and communities, especially in areas of degraded habitat (for example, previously cultivated fields). Supplement natural processes with an active restoration

program. Use vegetation management tools as described in Table 2.4-2, Vegetation Management Toolbox. Choose the tool that achieves the desired objective, with a minimum of negative impacts to other botanical resources. Because green season grazing by cattle has been shown to have a number of undesirable effects on native vegetation and habitat, its use as a tool to promote botanical resources would have limited application. Grazing may still be a useful tool under other prescriptions.

- Restore native grasslands by including seeds or propagules of bulbs and other perennial herbs in the restoration of previously cultivated or degraded fields. Increase seed and other material for restoration by cultivating target species offsite under agricultural conditions. Work to limit wild pig damage to bulbs and herbaceous perennial plants.
- Increase saltbush and other shrub communities by management and active restoration. Protect saltbush and other vulnerable shrub communities from fire. Restrict livestock grazing in saltbush and other shrub communities, unless necessary to meet important biological objectives. Restrict livestock grazing in saltbush recruitment years. Establish new saltbush and shrub populations in appropriate sites. Seek to reestablish landscape water flow patterns (for example, restore alluvial fans disrupted by roads) to promote shrub recruitment.
- Restore blue and Alvord oak habitat and facilitate recruitment of new trees. Protect oak trees impacted by livestock grazing or eliminate livestock grazing from these areas. Restore leaf litter mulch and soil functions beneath tree canopies and inoculate with mulch/soil organisms from healthy oaks. Establish new oak trees in areas previously shown to have trees, and in other appropriate sites. Provide supplemental water if necessary to ensure recruitment success. Protect oaks from devastating fires.
- Protect and restore vernal pool vegetation and crust communities in ecologically appropriate sites. Minimize negative impacts by livestock, horse, or human travel. Initiate studies to determine effects of livestock grazing on vernal pool vegetation and Carrizo crust communities and the feasibility of establishing/reestablishing vernal pools and crust communities in previously cultivated, overgrazed, or otherwise impacted areas. Undertake crust restoration, if practicable.
- Protect mosses and lichens at rock outcrops that receive regular visitation, such as Saucito Rocks. Take actions, such as education and signing, to prevent new trails that damage moss or lichen communities.

2.4.5.2 Non-Core Area Threatened and Endangered Animals

Objective: Maintain viable populations of giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel (target species) in areas of suitable habitat with an emphasis on the following subregions:

Table 2.4-4. Target Species and Their Ecological Subregions, Alternative 3

	Caliente Mountain South	Temblor Range	Panorama Hills / Elkhorn Plain	Carrizo Plain Central	Carrizo Plain North	Soda Lake	Caliente Foothills South
giant kangaroo rat	X	X	X	X	X		
blunt-nosed leopard lizard	X		X	X			X
San Joaquin kit fox	X		X	X	X	X	
San Joaquin antelope squirrel	X	X	X	X	X	X	

Allow the populations of these target species to naturally fluctuate up and down, in terms of number and distribution, but initiate management actions to prevent populations from disappearing from areas of suitable habitat.

Management Actions

- Identify and map areas of suitable habitat for giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel. Preliminary areas of suitable habitat are shown on Map 3-2, Special Status Animals. Manage areas of suitable habitat the same as core areas to prevent target species from disappearing from areas of suitable habitat.
- Monitor populations to determine trends and further define minimum population threshold values. If populations approach target minimums, initiate management actions, including those identified in Appendix C, Conservation Target Table, depending on species' characteristics and specific factors influencing population trends.
- In those years when target species populations are low and vegetation structure is above optimum, as identified in the Appendix C, Conservation Target Table, use vegetation management tools as described in Table 2.4-2, Vegetation Management Toolbox.
- Encourage partnerships with private landowners within habitat areas to manage target populations and habitat in concert with BLM goals.

2.4.5.3 Native Ungulates

Pronghorn

Objective: Provide and improve pronghorn fawning and foraging habitat in the Caliente Foothills North and Carrizo Plain North subregions so that a CPNM-based herd of 250 pronghorn can be achieved within 10 years.

Management Actions

- Support CDFG in efforts to monitor CPNM pronghorn populations via continuing aerial reconnaissance and habitat studies. Support CDFG in initiation of new studies to determine pronghorn diet, habitat use, population dynamics, and biology. Potential research tools include radiotelemetry, GPS collars, and other monitoring equipment.
- Maintain and improve areas of pronghorn habitat. Allow livestock grazing in key pronghorn habitat (see Map 3-3, Pronghorn and Elk Habitat) only as identified in the Conservation Target Table. Include shrubs, tall forbs, and perennial native grasses in restoration seed mixes to provide mosaic of forage resources, habitat structure, and adequate fawning cover (Carrizo Plain North). Promote forb production by vegetation treatments (for example, prescribed fire, removal of accumulated dead annual grasses). Maintain critical natural and man-made water sources year round. Establish water sources within two miles of key forage and fawning areas in the Caliente Foothills North and Carrizo Plain North subregions (see Map 3-1, Carrizo Plain Subregions). Provide supplemental feed if necessary.
- Promote herd travel across the landscape by modifying all fences to allow animal passage underneath, such as realigning, reducing, or removing unnecessary fencing, or reducing the number of pastures to reduce the number of fences.
- Protect herd by measures to reduce vehicle collisions (for example, with speed limits, public education, and signs; by moving fences back from roads; by mowing road edges).

- Introduce pronghorn from other areas if necessary to achieve the 250-animal goal within 10 years.

Tule Elk

Objective: Provide and improve calving and foraging habitat in the Monument adequate to support a CPNM-based herd of 500 tule elk can be achieved within 10 years.

Management Actions

- Support CDFG in their efforts to monitor CPNM elk populations via continuing aerial reconnaissance and habitat studies. Support CDFG in their continuation of studies to determine elk diet, habitat use, population dynamics, and biology. Potential research tools include radiotelemetry, GPS collars, and other monitoring equipment.
- Focus initial actions to maintain and improve areas of elk habitat in the Caliente Foothills North and Carrizo Plain North subregions. Allow livestock grazing in pastures identified as key calving and foraging habitat only as identified in the Conservation Target Table. Include shrubs, tall forbs, and perennial native grasses in restoration seed mixes to provide mosaic of forage resources, habitat structure, and adequate fawning cover. Maintain adequate acreage of tall grassland habitat within the Carrizo Plain North subregion. If necessary to meet herd objectives and compatible with other resource objectives, restore native grassland in other subregions. Maintain critical natural and man-made water sources year round. Provide at least one water source per square mile and construct water sources large enough to support 250 elk, at a maximum of 5 miles apart, within important elk habitat in the Caliente Foothills North and Caliente Mountain South subregions (see Map 3-3, Pronghorn and Elk Habitat).
- Protect herd by measures to reduce vehicle collisions (for example, with speed limits, public education, and signs; by moving fences back from roads; by mowing road edges).
- Introduce tule elk from other areas, if needed to achieve herd objectives within ten years.

2.4.5.4 Avian Species

Nesting Sites and Habitat

Objective: (Same as Alternative 2) Maintain or improve nesting, roosting, and foraging habitat for raptors (Caliente Mountain South, Caliente Mountain North subregions) and ground-nesting birds such as grasshopper sparrow and short-eared owls (Caliente Foothills North, Carrizo Plain North, Soda Lake subregions), and migratory birds (Caliente Foothills South, Caliente Foothills North, Carrizo Plain North, Soda Lake subregions). Maintain or improve wintering habitat for raptors.

Management Actions

- Conduct annual surveys for wintering raptors. Occasionally survey for additional species (such as tricolored blackbirds).
- Conduct inventories to determine raptor nesting sites
- Protect nesting raptors from human disturbance at Selby Rocks, Painted Rock, and other nesting locations, but allow actions to protect rock art from bird excrement. Examples: limit public access to sensitive sites during nesting season, post signs, restrict climbing of rocks during nesting season.
- Allow certain nonnative trees and human structures to remain in place as habitat for birds. Construct new structures or plant additional trees.

- Support research to understand regional importance as a nesting and wintering site for raptors and ground-nesting birds.
- Apply variety of treatments (mowing, livestock grazing, burning, native planting, others as described in Table 2.4-2, Vegetation Management to create a mosaic of habitat types and structures to provide for a variety of species as necessary or as warranted.
- Livestock grazing within the Carrizo Plain North subregion will be done in a manner that promotes shrubs, tall forbs, and perennial native grasses as identified in the Conservation Target Table.
- Support the planting of food crops for sandhill cranes on adjacent lands on previously cultivated areas near Soda Lake, only if compatible with other biological and cultural objectives.
- Discourage use of polypropylene twine at gates and other facilities in the Monument to prevent its use as a nesting material and potential entanglement of birds. Remove and replace existing polypropylene twine at gates and facilities.
- Take measures to minimize bird mortalities caused by electrocution along power lines within the Monument (Caliente Mountain North, Caliente Mountain South, Temblor Range).

Upland Game Birds

Objective: (Same as Alternative 2) Maintain suitable habitat for upland game birds and allow for continuation of existing artificial water sources.

Management Action

- Allow maintenance and replacement of existing artificial water developments, such as guzzlers. New water developments may be allowed if proposed by CDFG and compatible with biological, cultural, and wilderness objectives.

2.4.5.5 Nonnative Animals and Captive-Held Native Animals

Objective: Control the spread of nonnative animals. Minimize disease transmission, harassment, and competition from nonnative animals and native animals that have been held in captivity.

Management Actions

- Control and eliminate, when possible, nonnative animals such as wild pigs and honeybees that may have negative impacts on habitat or other species.
- Prohibit the release of nonnative animals except for the use of approved biocontrol agents, the authorized use of livestock, or in accordance with a CDFG-approved permit(s).
- Prohibit the release of native animals that have been held in captivity unless the release is required to meet monument objectives, such as augmentation or reestablishment of an endangered or threatened species like the Kern primrose sphinx moth; reestablishment of giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, or San Joaquin antelope squirrel in core areas; or the release of pronghorn or elk if necessary to meet herd objectives.
- Take protective measures if pets from visitors or private lands are causing wildlife depredation or other ecological damage. Examples: Require pets to be leashed or controlled at all times, require pet owners to remove fecal material, contact owners if free-roaming pets from private lands are causing impacts.

2.4.5.6 Nonnative Plants

Objective: Control the spread of noxious weeds and other nonnative plants.

Management Actions

- Follow IPM principles. Each infestation will be evaluated as to the best control methods. Criteria include growth characteristics, weediness, life history stage, size of infestation, difficulty of control, and previous control methods. Depending on these characteristics, any of the methods included in Table 2.4-2, Vegetation Management Toolbox, may be employed. Monitor to determine effectiveness of control measures
- Monitor to detect new nonnative populations and aggressively work to eliminate founder populations before they can spread.
- Work to eradicate target weed species such as yellow star thistle, bull thistle, saltcedar, hoary cress, and Russian knapweed. Control and eradicate tree-of-heaven, and for plantings that have cultural or biological importance, replace with historically acceptable, but less invasive species such as black walnut. Work on landscape-wide methods for controlling widespread species such as Russian thistle and horehound.
- On a landscape level, design and implement measures to suppress nonnative annual grasses and herbs. Seed with native species, as applicable.
- Implement measures to minimize the spread of weeds by livestock and equestrian activities (for example, encourage weed-free husbandry, prohibit cleaning of horse trailers on the Monument, encourage the use of weed-free hay, monitor corrals and holding pens).

2.4.5.7 Fire

Objective: (Same as Alternative 2) Maintain the natural role of fire in the landscape where feasible.

Management Actions

- Manage fire (prescribed and wildfire) in the Caliente Mountain North subregion to mimic the natural return interval.
- Use fire as a habitat management tool to promote native species.
- Take measures to increase our understanding of native people's historic use of fire and historic fire return intervals to aid in current management applications.

2.4.5.8 Protected Land

Objective: (Same as Alternative 2) Direct acquisition efforts to acquire lands with important biological resources, especially those that are poorly represented in public ownership.

Management Actions

- Identify target inholdings. Encourage sale or transference of target properties through a variety of methods/incentives.
  - Primary focus would be to acquire property that supports habitat for and populations of species that are poorly represented on public lands such as sphinx moth and California jewelflower.
  - Secondary focus would include properties with important ecological characteristics (for example, Soda Lake and playa system), that are potential core areas for the San Joaquin suite of rare species (giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin

antelope squirrel), or that support other important CPNM species (spadefoot toads, fairy shrimp, Le Conte's thrasher, mountain plover, rare plants).

- Target inholdings that are important in maintaining the linkage between the CPNM and the San Joaquin Valley.
- Develop and maintain a GIS database showing the location of target resources to facilitate acquisition efforts.

2.4.6 No Action Alternative

2.4.6.1 Rare Plants, Plant Communities, Viable Populations of Plants and Animals, Native Perennial Grasses and Wildflowers, Habitat Structure Diversity, Avian Species, and Soda Lake

Goal: Increase the importance of native species in CPNM communities and provide for all transitional states of native communities through the natural range of disturbances (fire, livestock grazing, climatic events).

Objectives

- Mimic the range of natural processes and disturbances.
- Maintain representative shrub-scrub communities across the landscape to assure their continued existence.
- Sustain the integrity of natural vernal pool communities.
- Manage grasslands to increase the importance of native plants and promote full representation of native species.
- Develop an understanding of the effects of livestock grazing on current biotic communities and plant and animal species.

Management Actions

- Identify shrub-scrub stands to be maintained or enhanced.
- Manage (or exclude) livestock grazing to maintain high-priority shrub-scrub stands and enhance all other stands as appropriate.
- Avoid disturbance of natural vernal pools and the localized watershed required for their maintenance.
- Implement livestock grazing management (or exclusion) that will sustain vernal pool communities.
- Develop protocols to monitor vernal pools.
- Establish monitoring sites on grazed areas and adjacent ungrazed areas.
- Pursue stable funding source to address questions regarding the effectiveness of livestock grazing in meeting goals.
- Design studies to assess the effects of the proposed livestock grazing program on plants and animals.
- Identify replicate pastures to be grazed annually to the 500-pounds-per-acre mulch level prescription to evaluate the response of native and nonnative plant species to a consistent livestock grazing treatment.

Goal: Increase the importance of native species within existing nonnative communities as appropriate for current climatic conditions.

Objectives

- Reintroduce native plants and animals when appropriate.
- Restore and maintain natural communities.
- Maintain riparian zones in proper functioning condition to allow for the maintenance and development of natural riparian plant communities and basic riparian ecological functions.
- Determine location and extent of populations of exotic species and implement a prioritized control strategy.

Management Actions

- Develop a list of regionally and locally extirpated species and determine priorities for reintroduction. Assess habitat quality and environmental conditions to determine the probability of a successful reintroduction. Reintroduction benefits will be weighed against risks to other species and communities.
- Develop a reintroduction strategy cooperatively with the CDFG, BLM, the Nature Conservancy (TNC), and other experts, including USFWS, as appropriate. Strategies should be designed to detail population objectives being sought, minimize the possible changes in genetic composition of species inhabiting the CPNM, address contingencies should a population start to impact another species or plant community in adverse and unpredicted ways, and outline monitoring strategies necessary to evaluate success of the reintroduction.
- Explore options for increasing herd size and distribution of native ungulates.
- Collect and use materials for plant propagation from within the same hydrographic region, the Carrizo Plain, or the Cuyama Valley. Greenhouses or small nursery plots may be developed to accelerate the production of propagation materials. Five acres of seed plots and propagation facilities would be developed.
- Initiate studies to further our understanding of soil-vegetation relationships and historical distributions of plant communities to help plan restoration efforts.
- Establish additional test restoration plots throughout the CPNM to determine the most promising techniques for reintroducing native grass species, the factors (such as soil types) that influence community composition, and the affects of restoration efforts on native and core species. It is estimated that 30 acres of surface disturbance will result from seedling planting and 1,000 acres of disturbance will result from broadcast seeding.
- Identify opportunities for restoration by mapping roads and fuel breaks to be abandoned, previously cultivated fields, overgrazed areas, and other areas where the vegetation community has been degraded or destroyed. Evaluate springs and intermittent stream riparian zones to determine state (proper functioning, at risk, or nonfunctioning) using guidelines as described in BLM Technical Reference 1737-9, *Riparian Area Management: Process for Assessing Proper Functioning Condition* (BLM 1998).
- Develop strategy to improve at-risk and nonfunctioning riparian zones to proper function.
- Accelerate riparian zone restoration by planting, where appropriate, local stock of cottonwood and willow trees. Natural re-establishment has occurred without human assistance in several drainages indicating that riparian zones may have extended beyond the foothills of the Caliente Range in the past. Around springs, planting trees may result in diminished standing water critical for wildlife. Planting around springs should be done only after evaluating the drinking water needs of resident wildlife. Riparian restoration will disturb an estimated 10 acres of land.

- Fence water sources, wetlands, and riparian areas affected by livestock and wild pigs. Water diversions will divert the minimum amount necessary to maintain livestock or surface water for wildlife. Float valves or other devices will be installed to control diversion amounts. Water for livestock use will be piped as far from the riparian area as practical. If possible, livestock water sources will be maintained year-round for use by wildlife.
- Conduct inventories of exotic species to assist in setting control priorities. Determine the most efficient way to control exotic species.
- Aggressively control invasive exotic plants such as tamarisk and yellow starthistle, as well as other exotic species considered a threat to biotic communities. Estimated disturbances for the life of the plan are 500 acres for mowing, 5,000 acres for burning (25 acres of fire line), 200 acres for chemical application, and 25 acres for hand removal. Some of these efforts may require re-treatment of the same physical area.
- Evaluate the need to control exotic animal species such as red fox and wild pig.
- Evaluate the threats and value of nonnative tree species and eradicate when necessary. Generally, nonnative tree species are considered undesirable because of possible competitive exclusion of native species.

Goal: Achieve and maintain sustainable populations of all extant, non-listed native species.

Objectives

- Reduce impacts to non-listed native species through implementation of management and research actions
- Provide for the natural expansion and fluctuations of populations of non-listed native species.

Management Actions

- Implement the scoping process described in Section III.a (of the CPNA Plan), which details a strategy for determining when impacts will be considered significant.
- Monitor changes in abundance and distribution patterns at known locations of non-listed native species. This level of monitoring is intended to provide an early warning to possible detrimental effects to species in relation to management and to provide guidance in setting up more rigorous monitoring or research.
- Design potentially disturbing activities to allow continued expansion of non-listed native species into new areas or their return to historically occupied areas. These management activities should not block the movement of individuals or propagules or significantly reduce the probability of successful expansion.

Goal: Develop an understanding of the naturally occurring ecological processes affecting plant and animal communities.

Objectives

- Develop and update a map of known vegetative community boundaries at the 1:24,000 scale, correlated to soil type.
- Develop an understanding of the factors affecting the sustainability of the CPNM natural communities.
- Develop an understanding of the role of extraordinary events as an ecological process. Such events include fire, catastrophic runoff, wind and dust storms, prolonged drought, and disease epidemics.

The nature of these events precludes detailed advanced planning. Studies will need to be designed rapidly in order to take full advantage of research opportunities.

Management Actions

- Adopt a standard vegetation classification scheme. Take aerial photographs every five years unless extraordinary events occur, necessitating more frequent aerial photos. Ground-truth the plant community maps developed from interpreting aerial photographs. Make the third-order soil survey available at the Painted Rock Ranch as well as the Bakersfield District Office and correlate to vegetative communities.
- Develop and maintain an inventory of all species inhabiting the CPNM.
- Initiate and commit to long-term studies of the factors influencing community composition, structure, and function. Priority should be given to well-represented habitats that are inadequately studied by core species research. Because resources are limited, study areas should be relatively small and scattered geographically to assure representation of the habitat in question.
- Map all major perturbations (fire, floods, and disease episodes) of vegetative communities. This allows for the development of a complete history of disturbance events necessary to describe the importance of these events to plant and animal communities.
- Determine the function of extraordinary events in plant and animal community dynamics. Each event will be evaluated to determine the potential for research and how the research would fit into high-priority items. Determine the research needs using the managing partners and invited experts. When possible, standard monitoring methods will be used.

Goal: Monitor and evaluate the effectiveness of management in meeting biotic community goals.

Objectives

- Determine if management activities cause large population fluctuations or seriously impair community function. This level of monitoring is intended to show large-scale impacts to species and their communities in a timely manner. Smaller-scale impacts usually require more detailed study to determine effects.
- Assess the effectiveness of management in achieving stated project goals. This level of monitoring will generally take more detailed study than that described in other objectives.

Management Actions

- Conduct field observations at least seasonally of each biotic community to assess resource conditions and management effect.
- Employ recommendations based on monitoring results to help correct the causes leading to impacts.
- Develop and maintain a list of monitoring needs in order of priority. Priority should be based on the extent and intensity of anticipated impacts and the level of risk ascribed to a species or community.
- Conduct monitoring for high-priority issues. The results of these studies will be used to evaluate current and future management actions.

2.4.6.2 Threatened and Endangered Animals

Goal: Contribute to the recovery of listed species by achieving long-term, viable populations of all extant listed species within the CPNM, outside of captivity.

Objectives

- Manage extant locations and habitat features of listed species to allow for their continued existence and maintenance of viability. The continued functioning of the plant community is critical for these listed species.
- Provide for the natural expansion and fluctuations of populations of listed species consistent with species recovery.
- Reduce human-caused hazards to listed species.

Allowable Uses

Minimize adverse impacts to listed species and their habitats to the greatest extent feasible. A scoping process is described in Section III.a of the CPNA Plan that details a strategy for determining when impacts will be considered significant.

Management Actions

- Monitor changes in abundance and distribution of listed species at known locations. This level of monitoring is intended to warn of possible detrimental effects of management activities and to provide guidance in setting up more rigorous monitoring or research.
- Design potentially disturbing activities to allow continued expansion of listed species into new areas or their return to historically occupied areas.
- Identify, prioritize, and reduce or alleviate human-caused hazards to listed species.

Goal: Develop an understanding of the distribution and abundance of listed species and the mechanisms influencing changes in either parameter.

Objectives

- Determine historic and current distribution and abundance of listed species and monitor changes in both parameters relative to soils, plant associations, past and present land uses, and climatic vagaries.
- Develop an understanding of the demographics and habitat requirements of the listed species.

Management Actions

- Compile and centralize all known data on historic distribution and abundance. Encourage further investigation into past vegetative community species composition.
- Encourage further pollen analysis to determine this technique's efficacy in describing current vegetative community species composition.
- Inventory current distribution and abundance of core species relative to soils, plant associations, and past and present land uses.
- Establish a procedure to monitor changes in distribution and abundance at appropriate time intervals and relative to climatic vagaries and extraordinary events.
- Develop field observation forms for use by all cooperators.
- Develop and maintain a database on distribution and abundance and make the information available to cooperators and interested individuals
- Determine estimates of and variances in demographic parameters for each species.
- Determine habitat requirements for the listed species.

2.4.6.3 Native Ungulates

Goal: Increase the importance of native species within existing nonnative communities as appropriate for current climatic conditions.

Objective: Reintroduce native plants and animals when appropriate.

Management Action: Explore options for increasing herd size and distribution of native ungulates (pronghorn and elk).

2.4.6.4 Riparian Nonnative Species

Goal: Increase the importance of native species within existing nonnative communities as appropriate for current climatic conditions.

Objectives

- Reintroduce native plants and animals when appropriate.
- Restore and maintain natural communities.
- Maintain riparian zones in proper functioning condition to allow for the maintenance and development of natural riparian plant communities and basic riparian ecological functions.
- Determine location and extent of populations of exotic species and implement a prioritized control strategy.

Management Actions

- Identify opportunities for restoration by mapping roads and fuel breaks to be abandoned, previously cultivated fields, overgrazed areas, and other areas where the vegetation community has been degraded or destroyed. Evaluate springs and intermittent stream riparian zones to determine functional status (proper functioning, at-risk, or nonfunctioning), using guidelines as described in BLM Technical Reference 1737-9, *Riparian Area Management: Process for Assessing Proper Functioning Condition* (BLM 1998).
- Develop strategy to improve at risk and nonfunctioning riparian zones to proper function.
- Accelerate riparian zone restoration by planting, where appropriate, local stock of cottonwood and willow trees. Natural re-establishment has occurred without human assistance in several drainages indicating that riparian zones may have extended beyond the foothills of the Caliente Range in the past. Around springs, planting trees may result in diminished standing water critical for wildlife. Planting around springs should be done only after evaluating the drinking water needs of resident wildlife. Riparian restoration will disturb an estimated 10 acres of land.
- Fence water sources, wetlands, and riparian areas affected by livestock and wild pigs. Water diversions will divert the minimum amount necessary to maintain livestock or surface water for wildlife. Float valves or other devices will be installed to control diversion amounts. Water for livestock use will be piped as far from the riparian area as practical. If possible, livestock water sources will be maintained year-round for use by wildlife.
- Conduct inventories of exotic species to assist in setting control priorities. Determine the most efficient way to control exotic species.
- Aggressively control invasive exotic plants such as tamarisk and yellow starthistle, as well as other exotic species considered a threat to biotic communities. Estimated disturbances for the life of the plan are 500 acres for mowing, 5,000 acres for burning (25 acres of fire line), 200 acres for chemical

application, and 25 acres for hand removal. Some of these efforts may require re-treatment of the same physical area.

- Evaluate the need to control exotic animal species such as red fox, wild pig, and cowbirds.
- Evaluate the threats and value of nonnative tree species and eradicate when necessary. Generally, nonnative tree species are considered undesirable because of possible competitive exclusion of native species.

Goal: Maintain and enhance hydrologic processes.

Objective: Protect or enhance habitat condition, water quality, plant community composition, and wildlife use for all springs, water sources, and drainages.

Management Actions

- Complete spring and water source inventory by year three of plan implementation.
- Initiate monitoring studies of springs and seeps to determine trends of plant community composition, water flows, and water quality to evaluate management effectiveness.
- Evaluate water source inventory and monitoring information to determine needs for habitat protection or habitat improvement. Protect sensitive areas through fencing, water distribution to adjacent uplands, and seeding or transplants.
- Design spring improvements to maintain or improve wetland conditions.
- File for appropriative water rights where applicable.
- Design and maintain roads and facilities to allow sheet and channel runoff.
- Protect active washes and alluvial fans from channelization.

2.4.6.5 Fire

Goal: Develop an understanding of the role of fire in the CPNM.

Objectives

- Develop a fire history for the CPNM.
- Develop an understanding of the effects of fire and suppression on current biotic communities and species of plants and animals.

Management Actions

- Determine the extent of fire use by Native Americans.
- Determine the historical extent, intensity, interval season, and duration of fires.
- Establish post-fire monitoring sites on areas burned by wildfires and adjacent unburned areas. It is estimated that 50,000 acres will burn as a result of wildfire resulting in fire line construction on 25 acres during the life of this plan.
- Conduct prescribed burns to answer specific questions regarding fire's affects on plant and animal communities. These studies should include unburned controls as well as data collected both before and after the prescribed burn. It is estimated that 30,000 acres of prescribed fire will be conducted resulting in fire line construction on 10 acres during the life of this plan.

- Design studies to assess the effects of various suppression and prescribed burn pretreatment methods (fire line construction) on plants and animals.

Goal: Manage fire to derive maximum biological benefit while minimizing impacts on resources.

Objectives

- Coordinate wildfire suppression and prescribed burning activities.
- Pre-suppression and suppression activities will be implemented to reduce the adverse impacts of fire management.

Management Actions

- Develop a comprehensive fire-management plan encompassing fire safety, sensitive resources (biological and cultural), and agency coordination.
- Pre-suppression activities will be carried out in a manner based on research results that will minimize negative impacts on resources.
- Allow wildfires to burn in designated areas to allow re-establishment of natural fire intervals and to minimize negative impacts on resources during fire suppression activities.

Goal: Increase the importance of native species in CPNM communities and provide for all transitional states of native communities through the natural range of disturbances (fire, livestock grazing, climatic events).

Objective: Mimic the range of natural processes and disturbances.

Management Action: Implement the livestock grazing, fire management, and research actions described in the Habitat Management section of the CPNA plan.

2.4.6.6 Vernal Pools and Sag Ponds

Goal: Increase the importance of native species in CPNM communities and provide for all transitional states of native communities through the natural range of disturbances (fire, livestock grazing, climatic events).

Objectives

- Sustain the integrity of natural vernal pool communities.
- Develop an understanding of the effects of livestock grazing on current biotic communities and plant and animal species.

Management Actions

- Avoid disturbance of natural vernal pools and the localized watershed required for their maintenance.
- Implement livestock grazing management (or exclusion) that will sustain vernal pool communities.
- Develop protocols to monitor vernal pools.
- Implement restoration activities as described in Subsection (a) of the CPNA Plan.
- Establish monitoring sites on grazed areas and adjacent ungrazed areas.

- Pursue stable funding source to address questions regarding the effectiveness of livestock grazing in meeting goals.
- Design studies to assess the effects of the proposed livestock grazing program on plants and animals.

2.4.6.7 Protected Land

Goal: Acquire remaining private lands to protect and enhance natural and cultural values.

Objective: Acquire, from willing sellers, all remaining private lands within the boundaries of the CPNM.

Management Actions

- Acquire lands by donation, compensation, exchange, or purchase. Lands will be acquired based on availability, biological or cultural values, and management needs.
- Establish agreements or acquire easements to protect resources with owners of parcels that cannot be acquired in fee.
- Cooperate with San Luis Obispo County to address private land development issues within the CPNM.
- Retain all acquired lands and original public land within the CPNM, but allow exchange of parcels between BLM, TNC, and CDFG if mutually beneficial for management purposes. Retain all original mineral rights on split estate lands.

2.5 Fire and Fuels Management

Management of fire and fuels involves achieving a balance between fire suppression activities to protect life, property, and resources, and the use of fire and other mechanical tools to regulate fuels and maintain healthy ecosystems. A consistent set of fire management policies for all federal lands was first outlined in 1995 with the *Federal Wildland Fire Management Policy and Program Review* (USDI and USDA 1995). Several guiding principles were recognized in this policy regarding the natural role of fire as a change agent, the need to fully integrate wildland fire management into land management planning, and recognition of the importance of local interagency coordination and cooperation, which are facilitated by standardization of policies and procedures among federal agencies. Further refinements of the national policy have occurred since 1995, including the *Review and Update of the 1995 Federal Wildland Fire Management Policy* (USDI et al. 2001) and the *Interagency Strategy for the Implementation of Federal Wildland Fire Management Policy* (USDI and USDA 2003).

The Federal Wildland Fire Policy put in place a three-tier planning system for fire management:

- Land use planning, such as this RMP, to outline overall land use goals, objectives, and actions;
- Fire management plan, which serves as the functional activity-level plan for the fire management program; and
- Implementation plans, which are site-specific direction, such as prescribed fire plans and wildland fire implementation plans (used in wildland fire use), and modified suppression plans.

The Bakersfield Field Office completed a fire management plan in September 2004. In this plan, the CPNM was addressed as a separate fire management unit. Following completion of this RMP, the fire management plan will be reviewed and made consistent with any new decisions in this land use plan.

To facilitate understanding of the alternatives for fire and fuels, the following section briefly defines some of the terms used:

Appropriate Management Response (AMR): The response to a wildland fire based on an evaluation of risks to firefighter and public safety; the circumstances under which the fire occurs, including weather and fuel conditions; and natural and cultural resource management objectives, protection priorities, and values to be protected. The AMR ranges across a spectrum of tactical options from monitoring the fire to intensive suppression actions.

Wildfire: An unplanned and unwanted wildland fire including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the fire out.

Wildland Fire Use: The application of the AMR to naturally ignited wildland fires to accomplish specific resource management objectives in predefined designated areas outlined in fire management plans. Operational management is described in the wildland fire implementation plan.

Prescribed Fire: Any fire ignited by management actions to meet specific objectives.

2.5.1 Goals, Objectives, and Management Actions Common to All Action Alternatives

2.5.1.1 Goals

- Ensure that protection of human life is the single, overriding priority in all fire management activities.
- Manage fuels and wildfire suppression actions to avoid resource damage from catastrophic fire.
- Restore natural role of fire in the ecosystem.

2.5.1.2 Objectives and Management Actions

Objective: Determine the AMR to fire based on the likely consequences to firefighter and public safety and welfare, natural and cultural resources, and values to be protected.

Management Actions

- Fight fire safely by following procedures in the *Interagency Standards for Fire and Fire Aviation Operations* (USDI and USDA 2008).
- Coordinate closely with interagency fire suppression partners to ensure that resource protection strategies are understood and implemented. Continue to include a modified suppression plan in the Central Coast Operating Plan to outline fire suppression guidelines to fire suppression partners.
- Utilize existing natural and human-made barriers (such as roads, trails) where feasible during wildland fire suppression.
- Utilize minimum impact suppression tactics (MIST) in the Caliente Mountain WSA. Also utilize MIST within the remainder of the primitive recreation management zones, to the extent possible, considering other values at risk to be protected.
- Limit the use of fire retardant drops on rock outcrops to prevent damage to sensitive resources, such as rock art, vernal pools, raptor nesting sites, and biological crusts.
- Avoid aerial or ground application of fire chemicals within 300 feet of waterways in accordance with the *Interagency Standards for Fire and Fire Aviation Operations* (USDI and USDA 2008).

- Minimize the loss of fire-intolerant saltbush vegetation.
- Request a resource advisor familiar with area management objectives and sensitive resource values for all fires burning within the CPNM. Ensure BLM fire suppression personnel are also aware of special resource concerns in CPNM.
- Park vehicles and set up suppression support facilities in areas that have already been impacted (such as administrative sites) or locate outside the CPNM.
- Take measures to increase our understanding of native people's historic use of fire and historic fire return intervals to aid in current management applications.

Objective: Determine post-fire effects of all wildland fires and determine needed actions.

Management Actions

- Assess all wildland fires for emergency stabilization and rehabilitation needs.
- Where emergency stabilization and rehabilitation needs are identified, complete necessary work in a timely and cost-efficient manner.

2.5.2 Alternative 1

2.5.2.1 Objectives

- Utilize a hands-off / natural processes approach to fire management in the CPNM.
- Manage naturally occurring fires for resource benefit, where appropriate.
- Fire control objectives:
  - Target wildfire acres burned per decade: 15,000 acres.
  - Target individual wildland fire size: 1,000 acres or less 90 percent of the time.

2.5.2.2 Allowable Use

Allow for the option of wildland fire use within the Caliente Mountain WSA.

2.5.2.3 Management Actions

- Apply the AMR to wildland fire using the following assumptions:
  - Actively suppress fires that threaten life or private property.
  - Consider managing natural ignitions within the Caliente Mountain WSA as wildland fire use fires. Manage fires for resource benefit.
  - In other areas, apply a confine strategy, where fires are suppressed when they reach the nearest existing control feature, such as a road.
  - Utilize MIST for fires burning within the Caliente Mountain WSA (17,984 acres). Use MIST to the extent possible in the remaining primitive recreation management zones, which include an additional 65,218 acres under this alternative.
  - While considering the above assumptions, the incident commander retains the authority during initial attack to undertake whatever actions are deemed appropriate based on current and anticipated conditions (while considering restrictions to protect sensitive natural and cultural

resources). For example, a confine strategy may not be appropriate in times of extremely hot and dry conditions or when multiple incidents in a geographic area have depleted available suppression resources.

- Utilize mechanical equipment, such as dozers, only when necessary to protect human life or property.
- Limit mechanical fuel reduction activities to immediately adjacent to structures or other physical improvements, to meet state requirements for vegetation clearance (currently 30 feet of cleared fuel directly adjacent to structure and reduced fuel within 100 feet).
- Do not conduct any prescribed burning in the CPNM, relying instead on natural ignitions to restore fire to the landscape.

2.5.3 Alternative 2 (Preferred Alternative)

2.5.3.1 Objective

Follow current wildland fire objectives in the fire management plan:

- Target wildfire acres burned per decade: 10,000 acres.
- Target individual wildland fire size: 100 acres or less 80 percent of the time.
- Fires on the valley floor burning in grassland areas away from sensitive cultural sites and fire-intolerant shrub areas may be managed using a confine strategy, burning to the nearest roads. It is estimated that approximately 20 percent of fires could meet these conditions, with fire size averaging 1,000 acres.

2.5.3.2 Allowable Uses

No areas identified for wildland fire use within the CPNM.

2.5.3.3 Management Actions

- Apply the AMR to wildland fire using the following assumptions:
  - Actively suppress fires that threaten life, facilities, or private property.
  - Actively suppress fires that threaten fire sensitive natural or cultural resources, such as saltbush or other vulnerable shrub communities, Alvord and blue oak stands, and National Register properties. Active suppression could include aerial attack, mobile attack, handline construction, or dozerline construction (outside of sensitive cultural site areas). Utilize mobile attack in preference to more disturbing methods such as dozerline construction.
  - In other areas, apply a confine strategy, where fires are suppressed when they reach the nearest existing control feature, such as a road.
  - Utilize MIST for fires burning within the Caliente Mountain WSA (17,984 acres). Use MIST to the extent possible in the remaining primitive recreation management zones, which include an additional 36,480 acres under this alternative.
  - While considering the above assumptions, the incident commander retains the authority during initial attack to undertake whatever actions are deemed appropriate based on current and anticipated conditions and resource availability (while considering restrictions to protect sensitive natural and cultural resources). For example, a confine strategy may not be appropriate in times

of extremely hot and dry conditions or when multiple incidents in a geographic area have depleted available suppression resources.

- Coordinate with biological specialists to utilize prescribed fire to contribute to native species restoration goals and noxious weed control. Prescribed fire would also be used to return fire to its place in the ecosystem, as well as to meet fuel reduction needs. Treat up to 10,000 acres with prescribed fire each decade.
- Reduce fuels adjacent to structures and other improvements, as well as along major travel corridors to reduce the number of human-caused ignitions in the CPNM. Treat up to 4,000 acres per decade with non-fire fuels treatment. Treatments could include activities such as mowing along roads and providing vegetation clearance around structures.

2.5.4 Alternative 3

2.5.4.1 Objectives

Actively suppress wildfires and rely on prescribed fire to return fire to the ecosystem.

- Target wildfire acres burned per decade: 5,000 acres.
- Target individual wildland fire size: 100 acres 90 percent of the time.

2.5.4.2 Allowable Use

No areas identified for wildland fire use within the CPNM.

2.5.4.3 Management Actions

- Apply the AMR to wildland fire using the following assumptions:
  - Actively suppress all fires within the CPNM to minimize acres burned under wildland fire situations. Utilize aerial attack, mobile attack, handline construction, or dozerline construction.
  - Utilize MIST for fires burning within the Caliente Mountain WSA (17,984 acres).
- Coordinate with biological specialists to utilize prescribed fire to contribute to native species restoration goals and noxious weed control. Prescribed fire would also be used to return fire to its place in the ecosystem, as well as to meet fuel reduction needs. Treat up to 15,000 acres with prescribed fire per decade.
- Reduce fuels adjacent to structures and other improvements, as well as along major travel corridors to reduce the number of human-caused ignitions in the CPNM. Treat up to 4,000 acres per decade with non-fire fuels treatment.

2.5.5 No Action Alternative

Current direction for fire management is included in the CPNA Plan. Direction for fire and fuels management was included in the Biotic Communities section under Habitat Management, as well as the Emergency Services and Public Safety section.

2.5.5.1 Habitat Management

Goal: Develop an understanding of the role of fire in the CPNM.

Objective: Develop a fire history for the CPNM.

Management Actions

- Determine the extent of fire use by Native Americans.
- Determine the historical extent, intensity, interval season, and duration of fires.

Objective: Develop an understanding of the effects of fire and suppression on current biotic communities and species of plants and animals.

Management Actions

- Establish post-fire monitoring sites on areas burned by wildfires and adjacent unburned areas. It is estimated that 50,000 acres will burn as a result of wildfire resulting in fire line construction of 25 acres during the life of this plan.
- Conduct prescribed burns to answer specific questions regarding fire's affects on plant and animal communities. These studies should include unburned controls as well as data collected both before and after the prescribed burn. It is estimated that 30,000 acres of prescribed fire will be conducted resulting in fire line construction of 10 acres during the life of this plan.
- Design studies to assess the effects of various suppression and prescribed burn pre-treatment methods (fire line construction) on plants and animals.

Goal: Manage fire to derive maximum biological benefit while minimizing impacts to resources.

Objective: Coordinate wildfire suppression and prescribed burning activities.

Management Action

- Develop a comprehensive fire management plan encompassing fire safety, sensitive resources (biotic and cultural), and agency coordination.

Objective: Pre-suppression and suppression activities will be implemented to reduce the adverse impacts of fire management.

Management Actions

- Pre-suppression activities will be based on research results that will minimize negative impacts to resources.
- Allow wildfires to burn in designated areas to allow re-establishment of natural fire intervals and to minimize negative impacts to resources during fire suppression activities, as described in the protection strategy map in the CPNA Plan’s Technical Appendix.

2.5.5.2 Fire Safety

Goal: Protect people, facilities, and equipment from wildfires.

Objective: Increase the availability and dependability of water sources needed for wildfire suppression and prescribed burning.

Management Actions

- Select appropriate water holding tanks and fit valves with 2.5-inch National Standard adapters to be compatible with firefighting equipment.
- Prepare an activity fire plan for any procedure that could lead to fire ignition, such as metal cutting and welding, mowing, and scraping.

Objective: Prevent fires through increasing public awareness and education about fire hazards and fuel reduction.

Management Actions

- Post fire prevention signs that give a clear and concise fire prevention message.
- Prevent wildfires from spreading to or from structures by removing dry vegetation a distance of at least 30 feet.
- Reduce roadside fire hazards by mowing vegetation from the roadway and shoulders.

2.6 Air Quality

The *Clean Air Act* requires federal agencies to comply with federal, state, and local air pollution standards. The *Clean Air Act* also requires each state to develop an implementation plan ensuring that national ambient air quality standards are attained and maintained for criteria pollutants. National standards have been established for six pollutants described in the *Clean Air Act*. Of these six, only one – particulate matter – is substantially affected by natural resource management activities. Most particulate matter produced by wildland fire is less than 10 micrometers in diameter; this PM_{10} is the size class of particular concern for human health. Land managers have little control over where, when, and how much smoke is produced during wildfires. However, with prescribed fire, smoke levels can be managed through coordination with regional air quality districts in determining acceptable burn periods.

2.6.1 Goal, Objectives, and Management Actions Common to All Action Alternatives

2.6.1.1 Goal

Manage uses to maintain and improve air quality to meet federal and state ambient air quality standards.

2.6.1.2 Objective

Maintain and/or improve air quality to meet all local, state, and federal air quality standards.

2.6.1.3 Management Actions

- Comply with all local, state, and federal air quality regulations when implementing projects.
- Use alternative energy sources where feasible on BLM projects and facilities (for example, solar and/or wind).
- Minimize dust emissions on roads and while implementing earth-disturbing activities.
- Use accepted best management practices to minimize the exposure of employees, visitors, and area residents to the spores that may result in valley fever.

2.6.2 Alternative 1

2.6.2.1 Objective

Improve overall air quality by reducing fugitive dust emissions on roads throughout the Monument.

2.6.2.2 Management Actions

- Use an aggregate, gravel base, or chemical binder/dust suppressant to cover main access roads throughout the Monument.
- Close and reclaim roads determined redundant or unnecessary as identified in Section 2.18, Travel Management.
- Implement seasonal closures to the public on roads without dust suppression additives.

2.6.3 Alternative 2 (Preferred Alternative)

2.6.3.1 Objective

Improve overall air quality by reducing fugitive dust and particulate matter emissions throughout the Monument.

2.6.3.2 Management Actions

- Use an aggregate, gravel base, or chemical binder/dust suppressant to cover main BLM roads throughout the Monument, with primary focus on those accessing or passing high-use recreation sites, other areas with high public or resident exposure, and near rock art sites.
- Coordinate with county to reduce dust emissions on county roads.
- Close and reclaim roads determined redundant or unnecessary as identified in Section 2.18, Travel Management.
- Install solar panels where feasible to replace generators, or use windmills at wells. Rehabilitate existing windmills.
- Implement best management practices to ensure that all BLM projects minimize air quality impacts and risks to human health and safety (such as the risk of contracting valley fever).
- Avoid conducting prescribed fire when weather conditions are likely to result in smoke entering adjacent areas that exceed current air pollution standards (for example, the San Joaquin Valley Air Basin).
- Avoid burning during high-visitor-use periods to maintain visibility and protect human health and safety. (Examples of predictable high-use days include three-day weekends, holidays, peak flowering periods, and hunting season openings.)

2.6.4 Alternative 3

2.6.4.1 Objective

Improve overall air quality by reducing fugitive dust emission on roads throughout the Monument.

2.6.4.2 Management Actions

- Pave major travel routes into and out of the CPNM. (Work with the county to secure funding to implement this action on their administratively controlled roads.)
- Gravel key secondary routes and roads within the CPNM.
- Close/reclaim all unnecessary routes and roads that are not needed for administrative/public use(s).

- Install solar panels where feasible to replace generators, or use windmills at wells. Rehabilitate existing windmills.
- Avoid conducting prescribed fire when weather conditions are likely to result in smoke entering adjacent areas that exceed current air pollution standards (for example, the San Joaquin Valley Air Basin).
- Avoid burning during high-visitor-use periods to maintain visibility and protect human health and safety. Examples of predictable high-use days include three-day weekends, holidays, peak flowering periods, and hunting season openings.

2.6.5 No Action Alternative

2.6.5.1 Goal

Maintain or improve air quality.

2.6.5.2 Objectives

- Comply with local, state, and federal air quality and visibility requirements and encourage the reduction of emissions while conducting prescribed fires.
- Minimize dust generated from roads and other land management activities.

2.6.5.3 Management Actions

- Avoid conducting prescribed fire when weather conditions are likely to result in smoke entering adjacent areas that exceed current air pollution standards (for example, the San Joaquin Valley Air Basin).
- Avoid burning during high-visitor-use periods to maintain visibility and protect human health and safety. Examples of predictable high-use days include three-day weekends, holidays, peak flowering periods, and hunting season openings.
- Use the best available methods to reduce emissions and protect human health and safety. Consult with specialists and experts as appropriate.
- Use alternative energy when feasible and practice energy conservation to reduce pollutant generation.
- Comply with local, state, and federal PM_{10} dust control rules.
- Use the best available methods to reduce dust from existing roads, construction sites, and land management practices. Consult with specialists and experts as appropriate.

2.7 Soils

Soil is essential for the growth of vegetation. Without an intact base of healthy productive soil, watershed management goals for vegetation and wildlife are not achievable. Chemical and biological processes that form soil (for example, rock weathering, organic matter accumulation, plant material decomposition, and nutrient cycling) proceed slowly in the arid environment of the CPNM. Soil recovery processes are also slow. For these reasons, protection of soil ecology and productivity are especially important.

2.7.1 Goals, Objectives, and Management Actions Common to All Action Alternatives

2.7.1.1 Goals

- Achieve desired outcomes for soil resources, such as meeting or exceeding rangeland health standards for Central California (Appendix E).
- Conserve sensitive soils such as the clay dunes and those supporting biological crusts.

2.7.1.2 Objectives

- Maintain soil resources in proper functioning condition (including biological function).
- Conserve and restore areas of biological soil crusts.
- Manage land uses such that erosion and sedimentation rates are appropriate to natural processes, landscapes returning to natural processes, or landscapes under active restoration.

2.7.1.3 Management Actions

- Identify and evaluate erosion problems and implement corrective actions as needed.
- Limit fugitive dust pollution by reducing disturbance to soils.
- Incorporate best management practices into project authorizations to minimize erosion/sedimentation and conserve biological soil crusts.
- Develop and implement best management practices to reduce the threat of exposure of area residents, visitors, and employees to valley fever.

2.7.2 Alternative 1

2.7.2.1 Objective

Gain a better understanding of the processes that may be affecting area soils to allow for improved management and conservation.

2.7.2.2 Management Action

Assess/inventory soils within CPNM for proper functioning condition using criteria such as Rangeland Health Standards and Guidelines in Appendix E.

2.7.3 Alternative 2 (Preferred Alternative)

2.7.3.1 Objective

Gain a better understanding of the processes that may be affecting Monument soils. Take an aggressive approach to help the soils achieve proper functioning condition and educate the users about soil resources and sensitivity.

2.7.3.2 Management Actions

- Assess/inventory soils within CPNM for proper functioning condition using criteria such as Rangeland Health Standards and Guidelines – Appendix E.

- Identify and evaluate erosion problems and implement corrective actions as needed. Develop strategies to improve conditions on soils that are eroding. Priority will be given to human-caused problems that impact natural community processes or areas inhabited by sensitive species.
- Conserve/minimize impacts to areas that contain biological soil crusts.
- Consider seasonal closures to areas of sensitive soils.
- Consider seasonal closures on roads where excessive ruts occur to prevent road proliferation and resulting soil impacts such as erosion.

2.7.4 Alternative 3

2.7.4.1 Objective

Gain a better understanding of the processes that may be affecting area soils and implement intensive management to manage/restore soils to perform at proper functioning condition.

2.7.4.2 Management Actions

- Assess/inventory soils within CPNM for proper functioning condition using criteria such as Rangeland Health Standards and Guidelines – Appendix E.
- Evaluate erosion problems and implement corrective actions as needed. Develop strategies to improve conditions on soils that are eroding. Priority will be given to human-caused problems that impact natural community processes or areas inhabited by sensitive species.
- Conserve/minimize impacts to areas that contain biological soil crusts.
- Implement seasonal closures to areas of sensitive soils.
- Implement seasonal closures on all roads when ruts are two inches or greater, or conditions otherwise will result in road damage or erosion/sedimentation issues.
- Remediate erosion problems through eliminating causes and complete restoration.
- Provide educational materials to the Goodwin Education Center and/or kiosks that focus on proper use etiquette for protection of soil resources.

2.7.5 No Action Alternative

2.7.5.1 Goal

Maintain or achieve upland soil resources in proper functioning condition to allow for maintenance or development of natural plant communities.

2.7.5.2 Objective

Evaluate erosion problems, identify corrective actions needed, and monitor soil resources throughout the CPNM.

2.7.5.3 Management Actions

- Develop strategies to improve conditions on soils that are eroding. Priority will be given to human-caused problems that impact natural community processes or areas inhabited by core species.

- Acquire a digitized version of the Carrizo Plain Soil Survey (USDA Soil Conservation Service) for use with GIS.
- Manage livestock grazing in a manner that does not create excessive water or wind erosion.

2.8 Water Resources

Water quality is typically defined and discussed with respect to recognized water quality indicators. A body of water is considered to be "impaired" under the *Clean Water Act* when it exceeds or fails to achieve the upper or lower limit for one or more of these indicators. The primary indicators of water quality are:

- water temperature
- nutrient levels
- coliform count (fecal bacteria)
- turbidity
- sediment load
- dissolved oxygen
- stream channel condition

The Monument Proclamation explicitly reserves a federal water right subject to valid existing rights:

> There is hereby reserved, as of the date of this proclamation and subject to valid existing rights, a quantity of water sufficient to fulfill the purposes for which this monument is established. Nothing in this reservation shall be construed as a relinquishment or reduction of any water use or rights reserved or appropriated by the United States on or before the date of this proclamation.

The CPNM lacks perennial watersheds excepting small seeps and springs and a very short segment of the Cuyama River that touches the southern border. This "lack" of significant water sources has resulted in relatively limited monitoring of traditional water quality parameters. However, it also makes the available water even more critical to the wildlife and other Monument resources. No issues were identified to lead to development of alternatives for water quality management, so all goals, objectives, and management actions are common to all action alternatives.

2.8.1 Goals, Objectives, and Management Actions Common to All Action Alternatives

2.8.1.1 Goals

- Maintain and enhance surface and groundwater quality throughout the Monument.
- Protect Soda Lake and other water resources (such as springs).
- Maintain hydrologic processes and function of Soda Lake and other monument watersheds.
- Protect a quantity of water sufficient to fulfill the purposes for which the Monument was established.
- Maintain groundwater quantity and quality throughout the portion of the Carrizo Plain Groundwater Basin located within the National Monument.

2.8.1.2 Objectives

- Maintain and enhance water quality: hydrologic processes, ecosystem, and plant and wildlife communities (see Biological Resources – Goals, Objectives, and Management Actions Common to All Action Alternatives, Section 2.4.2.2 Objective and Management Actions, Soda Lake).
- Coordinate with appropriate state and federal water quality agencies to ensure that the quality of water entering the Monument is not compromised.
- Ensure riparian zones, streams, and floodplains are in proper functioning condition (see see Biological Resources – Goals, Objectives, and Management Actions Common to All Action Alternatives, Section 2.4.2.2 Objective and Management Actions, Riparian Areas).
- Coordinate with state and federal agencies to achieve compliance with the *Clean Water Act* or other applicable regulatory guidance.
- Manage upland areas to maintain or improve hydrologic function and minimize adverse downslope impacts.
- Establish a baseline database of existing water wells, groundwater level trends, and groundwater quality for the Carrizo Plain Groundwater Basin within the National Monument.
- Develop a model of the CPNM groundwater system and interaction with surface waters, watershed, and Soda Lake.

2.8.1.3 Management Actions

- Inventory/monitor wetland, riparian, and spring sites.
- Fence/protect wetland, riparian, and spring areas as necessary to meet or exceed proper functioning condition.
- Provide water for livestock, wildlife, and administrative use from wells rather than from natural springs and/or surface waters where it is determined that these uses are detrimental to the spring and/or surface waters.
- Continue to monitor and remove tamarisk, bull thistle, and other noxious weeds from wetland areas.
- Use native plants in wetland areas to restore degraded springs or streams.
- Inventory, characterize, and map all existing water wells within the CPNM
- Determine if any existing wells in the CPNM are suitable for water level and water quality monitoring.
- Drill one or two new groundwater monitoring wells at selected locations within the Carrizo Plain Groundwater Basin in the CPNM, focusing in areas that may be potentially impacted by proposed and future offsite land uses.
- Monitor the water levels and water quality in new monitoring wells and/or existing wells on a quarterly basis for first 2 years, and annually thereafter.
- Coordinate with other public agencies such as the U.S. Geological Survey, California Department of Water Resources, and San Luis Obispo County on monitoring and research relative to groundwater in the CPNM.
- Use groundwater and surface water data to develop a hydrologic model for the CPNM.

2.8.2 No Action Alternative

2.8.2.1 Goal

Maintain and enhance hydrologic processes.

2.8.2.2 Objective

Protect or enhance habitat condition, water quality, plant community composition, and wildlife use for all springs, water sources, and drainages.

2.8.2.3 Management Actions

- Complete spring and water source inventory by year three of plan implementation.
- Initiate monitoring studies of springs and seeps to determine trends of plant community composition, water flows, and water quality to evaluate management effectiveness.
- Evaluate water source inventory and monitoring information to determine needs for habitat protection or habitat improvement. Protect sensitive areas by actions such as fencing, water distribution to adjacent uplands, and restoring native habitat.
- Design spring improvements to maintain or improve wetland conditions.
- File for appropriative water rights where applicable.
- Design and maintain roads and facilities to allow sheet and channel runoff.
- Protect active washes and alluvial fans from channelization.

2.9 Wild and Scenic Rivers

BLM is required to evaluate stream segments on public lands as potential additions to the National Wild and Scenic Rivers System during the RMP process under Section 5(d) of the *Wild and Scenic Rivers Act* of 1968 (Public Law 90-542).

The RMP team met in October, 2007, and identified/evaluated watersheds within the CPNM for eligibility under the *Wild and Scenic Rivers Act*.

2.9.1 Goal, Objective, and Management Actions Common to All Action Alternatives

2.9.1.1 Goal

Meet the requirements of the Wild and Scenic Rivers Act to study stream segments for potential inclusion in the Wild and Scenic Rivers system.

2.9.1.2 Objective

Evaluate and provide interim protection for all eligible and suitable wild and scenic river segments until Congress makes a final determination regarding their designation under the *Wild and Scenic Rivers Act*.

2.9.1.3 Management Actions

- BLM would carry forward the non-eligible recommendation for Soda Lake from the Caliente RMP (1996).

- Abbot Canyon, Wallace Creek, and the Cuyama River were found to be not eligible for designation under the *Wild and Scenic Rivers Act* (see Appendix F – Wild and Scenic River Eligibility Analysis).

Note: Soda Lake, Abbot Canyon, Wallace Creek, and the Cuyama River all have values that are explicitly protected as objects under the Monument Proclamation. Therefore, objectives and actions are included in other parts of this RMP to ensure that they are protected.

2.9.2 No Action Alternative

BLM would carry forward the non-eligible recommendation for Soda Lake from the Caliente RMP (1996), and would not include an analysis of the eligibility and suitability for other watersheds within the monument.

2.10 Geology and Paleontology

The geological structure, formation processes, and the fossil assemblages in the Monument have long been recognized as important features needing protection by the public, government agencies, universities, and the scientific community. The following laws and policies provide direction for planning and managing the Monument's paleontological and geologic resources.

Pursuant to the Monument Proclamation, geological resources in the CPNM are recognized as "World famous geologic processes that formed the San Andreas as a preserved natural landscape..... Protect significant fossil assemblages of scientific interest."

Procedural guidance, policy, management, and planning for paleontological resource management are provided in the *Paleontological Program Manual 8270 and Handbook H-8270-1*. To conduct paleontological research or mitigation for projects in the Monument, a permit is required through the BLM State Office and fieldwork authorizations would be issued from the Bakersfield Field Office.

43 Code of Federal Regulations (CFR) 8365 addresses the collection of invertebrate fossils and, by administrative extension, fossil plants.

43 CFR 8200 addresses procedures for the management of lands that have outstanding natural history values such as fossils that are of scientific interest.

18 United States Code Section 641 provides authority for addressing the unauthorized collection of fossils as a type of government property.

2.10.1 Goals, Objectives, and Management Actions Common to All Action Alternatives

2.10.1.1 Goals

- Identify, protect, and preserve paleontological values and unique geologic features and examples of geologic processes pursuant to the Monument Proclamation.
- Enhance scientific, educational, and recreational opportunities pertinent to paleontological and geological resources.

2.10.1.2 Objectives and Management Actions

Objective: Protect and preserve significant vertebrate or invertebrate fossils.

Management Actions

- Implement paleontological inventory to identify sensitive zones and localities of vertebrate and invertebrate fossils in the Monument.
- Prioritize protection of sensitive paleontological and geological formations through law enforcement patrol.

Objective: Protect geological landforms such as the San Andreas Fault, Soda Lake, and the clay dunes at Soda Lake.

Management Action

- Identify baseline data and monitor sensitive areas to detect natural and human-caused disturbances such as erosion at Wallace Creek or unauthorized collection of fossils, and implement corrective action such as educational awareness and erosion control.

Objective: Encourage educational interpretation and research project opportunities with the scientific community and educational partnerships.

Management Actions

- Where resource integrity would not be compromised, interpret fossils, geological landforms, features, and formations as compatible with appropriate recreation management zone.
- Encourage valid research and volunteer partnership opportunities associated with the San Andreas Fault, Soda Lake, sag ponds, clay dunes, and other areas of geological interest in the Monument.

Objective: Establish baseline inventory of paleontological resources in the Monument.

Management Actions

- Encourage valid research and volunteer partnership opportunities to identify fossil localities, collect specimens, interpret finds, evaluate their significance, and preserve representative fossil formations and localities.
- Identify and compile existing geological and paleontological research maps and professional reports pertinent to the Monument. Maintain baseline data in hard copy and electronic (GIS) format.
- Create both detailed and planning overview geological maps of the Monument depicting Wallace Creek, Soda Lake, and other sites of geological and paleontological significance.

2.10.2 Alternative 1

2.10.2.1 Public Education and Interpretation

Objective: Enhance indoor displays and minimize field visitation to geologic and fossil resource formations to ensure long-term preservation.

Management Actions

- Public visitation would be allowed but not encouraged at geological and fossil field locations other than those already identified (for example, Wallace Creek).
- There would be no additional on-site public interpretive displays. Sensitive location information on paleontological resources would be protected.

- Continue existing guided public tours and self-guided geologic road tour and interpretive trail to San Andres fault/Wallace Creek and other points of geological interest in the Monument. Interpretive information such as brochures would be available for guided and self-guided visitations.
- Enhance the Goodwin Education Center or some other public facility displays in the Monument to provide additional information about the fossil/geologic formations in the Monument.
- Continue to provide public displays about the paleontological and geological values in the Monument at the Goodwin Education Center, including hands-on educational exhibits for the public.
- Potentially develop the interpretation of geologic and paleontologic resources at other facilities and limited field locations, compatible with the objectives of the recreation management zone.
- Continue to provide interpretive information materials on site or adjacent to pedestrian trails and at roadside locations previously established, such as Wallace Creek and other geological points of interest.

2.10.2.2 Paleontological Resource Scientific Research

Objective: Pursue research of paleontological resources at field locations using minimal tools.

Management Actions

- Research would be encouraged for the benefit of public education and appreciation of paleontological resources using methods that meet BLM permit standards and allow only minimal tools to limit ground disturbance.
- Pursue field research of paleontological resources through cooperative agreements, contracts, or permits to identify fossil formations, sensitive localities, and condition assessment of paleontological resources in terms of impacts from soil erosion or human-caused disturbances.
- Identify sensitive paleontological zones in the Monument and expand baseline inventory in GIS files or hard copy format.

2.10.2.3 San Andreas Fault/Soda Lake/Geological Formation Research

Objective: Limit field research disturbance of significant geological resources by requiring use of minimal tools.

Management Actions

- Research would be encouraged for the benefit of public education and appreciation of significant geological resources in the Monument using professional methods and tools that result in limited ground disturbance.
- Formal field research pertinent to geological resources would continue in areas of interest such as the San Andreas Fault, Soda Lake, sag ponds, clay dunes, and volcanic formations in the Monument.
- Research data recovered such as surface investigations, coring samples at Soda Lake, and geological, mineralogical, or seismic studies at the fault zone would be allowed using hand tools.
- Professional field research would be allowed in a manner that would not physically compromise resource integrity and visual resource management (VRM) class.

- Findings from geological research would be documented in a professional report and provided to BLM and its partners. Sensitive or unique geological information identified through research would be archived in GIS files or hard copy format for reference.

2.10.3 Alternative 2 (Preferred)

2.10.3.1 Public Education and Interpretation

Objective: Focus public education and interpretation of geological and paleontological resources at field locations.

Management Actions

- Interpretative information pertinent to geologic and paleontologic resources would be focused at existing and additional field locations in the Monument where compatible with specific recreation management zones and VRM class.
- Continue existing guided public tours and self-guided geologic road tours and interpretive trail to San Andres fault/Wallace Creek and other points of geological interest in the Monument. Interpretive information would be provided at on-site locations, or adjacent to pedestrian trails and road locations.
- Assess the feasibility of expanding the Wallace Creek interpretive program by providing geological walk-through-time displays adjacent to the trail.
- Maintain and enhance the Goodwin Education Center or some other public facility with displays pertinent to paleontological and geological formations. The center would continue to provide public displays and hands-on educational exhibits.

2.10.3.2 Paleontological Resource Scientific Research

Objective: Pursue field research of paleontological resources using a combination of hand tools and mechanized equipment that would balance protection of resources with obtaining of scientific information.

Management Actions

- Hand tools and mechanized equipment may be authorized for excavations where needed to assess and preserve significant fossils that may be lost to erosion or unauthorized collection. Exposed fossil formations or localities would be stabilized where feasible to deter further erosion or theft of specimens. Research methods would have to meet paleontological permit standards.
- Conduct field research in a fashion that would be compatible with the appropriate VRM class and not compromise the overall physical integrity of the fossil bed or locality.
- Recover fossils at risk of loss and place significant finds in a repository meeting federal standards (36 CFR 79). Selected specimens would be placed on exhibit in the Monument and other fossils may be used for public educational purposes such as hands hands-on interpretive uses.
- Pursue field research of paleontological resources through cooperative agreements and contracts or permits to identify fossil formations and localities, and assess condition of paleontological resources threatened by soil erosion or human-caused disturbances.
- Identify sensitive paleontological formations in the Monument and expand baseline inventory in GIS or hard copy format and maps.

2.10.3.3 San Andreas Fault/ Soda Lake/ Geological Formation Research

Objective: Pursue field research of significant geological resources using a combination of hand tools and mechanized equipment.

Management Actions

- Consider more intensive research for the advancement of public education and scientific understanding of significant geological resources in the Monument. A reasonable amount of ground disturbance would be allowed that would not compromise the physical integrity of the formation and would be compatible with the appropriate VRM class.
- Continue formal field research pertinent to geological resources in areas of interest such as the San Andreas Fault, Soda Lake, sag ponds, clay dunes, and volcanic formations in the Monument.
- Allow research data collection methods such as surface investigations, coring samples at Soda Lake, and geological, mineralogical, or seismic studies at the fault zone.
- Document findings from geological research in a professional report and provide to BLM and its partners. Sensitive or unique geological information identified through research would be archived in GIS or hard copy format for reference.

2.10.4 Alternative 3

2.10.4.1 Public Education and Interpretation (Same as Alternative 2)

Objective: Focus public education and interpretation of geological and paleontological resources at field locations.

Management Actions

- Focus interpretative information pertinent to geologic and paleontologic resources at existing and additional field locations in the Monument where compatible with specific recreation management zones and VRM class.
- Continue existing guided public tours and self-guided geologic road tours and interpretive trail to San Andres fault/Wallace Creek and other points of geological interest in the Monument. Interpretive information would be provided at on-site locations, or adjacent to pedestrian trails and roads.
- Assess the feasibility of expanding the Wallace Creek interpretive program by providing geological walk-through-time displays adjacent to the trail.
- Maintain and enhance the Goodwin Education Center or some other public facility with displays pertinent to paleontological and geological formations. The center would continue to provide public displays and hands-on educational exhibits.

2.10.4.2 Paleontological Resource Scientific Research (Same as Alternative 2)

Objective: Pursue field research of paleontological resources using a combination of hand tools and mechanized equipment that would balance protection of resources with obtaining of scientific information.

Management Actions

- Hand tools and mechanized equipment (which may lead to more ground disturbance) may be authorized for excavations where needed to assess and preserve significant fossils that may be lost to erosion or unauthorized collection. Exposed fossil formation or locality would be stabilized where feasible to deter further erosion or theft of specimens. Research methods would have to meet paleontological permit standards.
- Conduct field research in a fashion that would be compatible with the appropriate VRM class and not compromise the overall physical integrity of the fossil bed or locality.
- Recover fossils at risk of loss and place significant finds in a repository meeting federal standards (36 CFR 79). Selected specimens would be placed on exhibit in the Monument and other fossils may be used for public educational purposes such as hands-on interpretive uses.
- Pursue field research of paleontological resources through cooperative agreements and contracts or permits to identify fossil formations and localities, and assess condition of paleontological resources threatened by soil erosion or human-caused disturbances.
- Identify sensitive paleontological formations in the Monument and expand baseline inventory in GIS or hard copy format and maps.

2.10.4.3 San Andreas Fault/Soda Lake/Geological Formation Research (Same as Alternative 2)

Objective: Pursue field research of significant geological resources using a combination of hand tools and mechanized equipment.

Management Actions

- Consider more intensive research for the advancement of public education and scientific understanding of significant geological resources in the Monument. A reasonable amount of ground disturbance would be allowed that would not compromise the physical integrity of the formation and would be compatible with the appropriate VRM class.
- Continue formal field research pertinent to geological in areas of interest such as the San Andreas Fault, Soda Lake, sag ponds, clay dunes, and volcanic formations in the Monument.
- Allow research data collection methods such as surface investigations, coring samples at Soda Lake, and geological, mineralogical, or seismic studies at the fault zone.
- Document findings from geological research in a professional report and provide to BLM and its partners. Sensitive or unique geological information identified through research would be archived in GIS or hard copy format for reference.

2.10.5 No Action Alternative

2.10.5.1 Goal

Increase the understanding of the geology and paleontology of the CPNM.

2.10.5.2 Objective

Continue research into the geology and paleontology of the CPNM.

2.10.5.3 Management Actions

Public Education and Interpretation

- Maintain public education and interpretation at indoor facilities in the Monument at the Goodwin Education Center. The center would continue to provide public displays and hands-on educational exhibits. The exhibits and diorama provide educational information about the resources values in the Monument such as geologic, paleontologic, floral, faunal, and cultural resources.
- Display resource information via panels, kiosks, and brochures at on-site locations or adjacent to pedestrian trails and at roadside locations such as Wallace Creek, Painted Rock, and Traver, El Saucito, and Washburn ranches. Public brochures would be available for guided and self-guided geology road trips to San Andres fault/ Wallace Creek interpretive trail and other key points of seismic/geologic interest in the Monument.

Paleontological Resource Scientific Research

- Formal field research pertinent to paleontological resources would continue to be available under a paleontological resources use permit and contract or cooperative agreement, although no formal paleontological studies have been documented in the Monument.
- Limited field monitoring and patrol would continue at the current levels.
- Baseline maps depicting fossil formations in the Monument and adjacent studies would be compiled and retained in archival files.
- Field research would require authorization from BLM prior to implementing studies in the Monument.

San Andreas Fault/Soda Lake/Geological Formation Research

- Formal field research pertinent to geological resources would continue in areas such as the San Andreas Fault, Soda Lake, sag ponds, clay dunes, and volcanic formations in the Monument.
- Continue to evaluate research data recovered from surface investigations, coring samples at Soda Lake, and geological, mineralogical, or seismic studies using mechanized equipment on the fault zone.
- Baseline data from research would be maintained by the researcher and may be available in web links or professional papers. Copies of proposals and research findings would be shared with the partners and incorporated into the BLM library.

2.11 Cultural Resources

A broad range of federal laws, regulations, and program manuals guide BLM in the management of cultural resources and consultation with the California SHPO, and with federal tribal governments and other Native Americans. The following list identifies some of the primary guidance for developing cultural resource planning decisions:

- Monument Proclamation, “Protect historic/prehistoric structures and objects….Proper care and management of the rich human history….world class rock painting….historic ranches.”
- The BLM Cultural Resources 8100 Manual series establishes BLM’s policy for managing cultural resources including identifying and evaluating cultural resources, tribal consultation, planning,

protecting cultural resources, permitting, preserving collections, and interpreting cultural resources for the public.

- Cultural resources under BLM jurisdiction are subject to the provisions of Sections 106 and 110 of the *National Historic Preservation Act* (NHPA) of 1966 (as amended). Section 106 and 110 work is streamlined or modified for program efficiency through the National Programmatic Agreement among BLM, the Advisory Council of Historic Preservation, and the National Conference of State Historic Preservation Officers (March 1997). The National Programmatic Agreement is augmented by the State Protocol Agreement among the California State Director of BLM, the California SHPO, and the Nevada SHPO (October 2007).
- 36 CFR 800 provides implementing regulation guidance for Section 106 compliance. Part 800.16y defines what constitutes a federal undertaking and the criteria for assessing and addressing effects on a historic property.
- The 36 CFR 60 regulations provide compliance procedures and evaluation criteria for determining the eligibility of a cultural resource property for inclusion on the National Register of Historic Places (NRHP).
- The *Archaeological Resources Protection Act* (ARPA) of 1979 (as amended) establishes definitions, permit requirements, and criminal and civil penalties related to cultural sites. Sensitive cultural resource records, site location information, and traditional cultural properties and values would be held confidential from the public as deemed appropriate to protect historic properties under Section 9(a) of ARPA. The act is implemented by uniform regulations and departmental regulations found in 43 CFR 7.
- The *American Indian Religious Freedom Act* of 1978 provides federal policy to protect and preserve for the American Indian the inherent right of freedom to believe, express, and exercise their traditional religions, including but not limited to access to religious sites, use and possession of sacred objects, and freedom to worship through ceremonies and traditional rites.
- Executive Order 13007, *Indian Sacred Sites* (1996), directs federal agencies to manage federal lands in a manner that accommodates American Indian religious practitioners' access to and ceremonial use of Indian sacred sites, and avoids adversely affecting the physical integrity of sacred sites, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions.

2.11.1 Goals, Objectives, and Management Actions Common to All Action Alternatives

2.11.1.1 Goals

- Identify, protect, and preserve significant prehistoric and historic resources.
- Provide opportunities for Native American traditional cultural practice and access.
- Enhance opportunities for research, public education, and awareness of the fragile nature of heritage resources.

2.11.1.2 Objectives and Management Actions

Objective: Protect and preserve significant cultural resources from natural and human-caused disturbances such as erosion and vandalism at archaeological sites.

Management Actions

- Manage Painted Rock as a point of public interest to limit public use to a level that does not compromise its NRHP qualities or traditional use values.

- Repair, maintain, and realign the fences encircling the Rock Art Historic District in the vicinity of Painted Rock and Selby Rocks to enclose and protect all archaeological sites in this portion of the district from unauthorized off-highway vehicle (OHV) use and livestock grazing trespass. Remove fences that are in poor condition if they are no longer needed, subsequent to recordation and assessment pursuant to Section 106 of the NHPA. See Map 2-1, Painted Rock Exclusion Zone.
- Prohibit still and video photography for commercial purposes of the pictograph images at Painted Rock and other rock art sites in the Monument. Permits would only be issued for photography related to activities of accredited scientific, academic, or research institutions (for example, museums or universities). Applications would be evaluated on a case-by-case basis. See Lands and Realty section for further commercial photography permitting requirements.
- Monitor, identify, and record cultural resource sites threatened by human activity and natural forces such as graffiti, illegal digging, artifact collection, inadvertent rock art disturbance by human contact, water and wind erosion, bird excretion and dust accumulation on rock art paintings, and weather effects on historic buildings and structures. Implement corrective actions such as law enforcement patrol, public education, and stabilization.
- For rock art sites threatened by natural conditions and human-caused impacts, conduct assessment, conservation treatment, detailed documentation, or other preservation strategies, pursuant to federal regulations and BLM Cultural Manual 8120-8150.
- Assess impacts from livestock grazing to the Saucito Rocks, Sulphur Springs, and Abbott Canyon components of the Rock Art Historic District. If impacts are or could potentially occur, exclude livestock from all or parts of the pastures encircling the sites.
- Assess impacts from the administrative road accessing the Saucito Rocks, Sulphur Spring, and Abbott Canyon components of the Rock Art Historic District. Identify and assess impacts to any other NRHP properties located within or contiguous to existing public or administrative roads. Employ realignment, closure of road segments, road capping, or some other form of preservation.
- To protect archaeological properties in the Rock Art Historic District from direct impacts from unauthorized OHV use or indirect effects from dust accumulating on rock art motifs, target law enforcement patrol to deter unauthorized OHV use and to enforce speed limit restrictions in the Monument. Regulation signs to deter OHV use would be posted.
- Any NRHP-eligible archaeological property at risk would be subject to emergency closure or access restrictions for site preservation, pursuant to federal regulations.
- Revise or update fire map sensitive cultural resource zones as needed concurrently with cultural baseline map updates
- NRHP-listed archaeological properties in the Rock Art Historic District and nominated eligible properties in the National Historic Landmark consist of 89 cultural properties allocated to the Conservation for Future Use category. Painted Rock is allocated to Traditional and Public Use categories. The historic Traver Ranch and KCL Ranch are allocated to the Public Use category. The historic El Saucito Ranch, Washburn Ranch, and Selby Cow Camp are allocated to the Public Use and Scientific Use categories. See Appendix 2-X, *Categories for Cultural Resource Use Allocations*.
- Evaluate sites for National Register eligibility and assign the appropriate management use category for sites in the Monument not previously designated above (that is, scientific, conservation, traditional, public, experimental, or discharged from management), pursuant to BLM 8110 Manual, SHPO State Protocol Agreement, and other pertinent regulations. Cultural resources could be allocated to one or more use categories. See Appendix G, Cultural Resource Use Allocations.

- Develop and implement a cultural resource project plan for restoring, stabilizing, or reconstructing NRHP-eligible and selected non-eligible historic sites such as historic ranch buildings, pursuant to BLM Manual 8100. Include in plan identification of facilities that pose a hazard to the public and either raze facilities or secure them in a state of arrested decay.

Objective: Maintain and enhance open dialogue with Native Americans to participate in planning and consultation processes.

Management Action:

- Develop procedural agreement with the Native Americans addressing items such as consultation procedures, *Native American Graves Protection and Repatriation Act* issues, tribal government-to-government face-to face meetings, monitoring, interpretative, and trust responsibilities.
- Continue to work with federal tribes, other Native Americans having ancestral ties to the Carrizo Plain, and the Native American Advisory Committee under the guidelines of the existing charter agreement.

Objective: Ensure opportunities for Native American traditional plant gathering, cultural activities, and ceremonial rites.

Management Actions

- Pursue development of protocol agreement in the Monument with the Native Americans to implement the statewide policy regarding traditional plant gathering and other traditional practices such as ceremonial rites and access.
- In implementing this agreement, consider opportunities to work with Native Americans to identify, protect, and implement active management efforts (such as prescribed burning, coppicing) to improve vigor and distribution of native plants used in traditional practices such as basketweaving.
- As wildlife herds increase to sustainable levels, work with Native American groups and the California Department of Fish and Game in an effort to allow for the use of native animals pursuant to State Fish and Game Laws and Regulations

Objective: Provide for the removal of invasive nonnative plants while retaining the integrity of historic property landscapes.

Management Actions

- Where invasive nonnative plants such as horehound are found at a specific prehistoric site such as Painted Rock, consider the eradication of the nonnative plant and replace with a native plant to restore the site's natural setting and to stabilize the site from wind/water erosion and resulting exposure and potential theft of artifacts pursuant to federal regulations and Native American consultation.
- Where invasive nonnative plants such as tree of heaven are found on a historic property, eradicate the plant and replace with an appropriate native plant that would typically be found in the Monument such as the cottonwood tree or replace with acceptable non-invasive nonnative plant to preserve the historic landscape, pursuant to cultural regulations.

Objective: Encourage partnerships, research, interpretation, and educational opportunities with the public, scientific, and educational communities, Native Americans, conservation groups, and other interested parties.

Management Actions

- El Saucito Ranch interpretive and educational trail program would continue with restricted access, allowing only pedestrian guided tours.
- Implement intensive and mixed sample inventory strategies to establish a predictive model revealing the low, moderate, or high probability zones for prehistoric and historic resources in the CPNM.
- Compile and transcribe oral histories from willing ranchers, ethnic groups, Native Americans, and other parties having cultural ties to the CPNM.
- Compile and archive for long-term preservation, historic documents and photographs associated with the CPNM for public education and interpretive uses pursuant to BLM Manual 8110 and 8170.
- Pursue research questions pertinent to historic resources such as:
  - What economic and lifestyle strategies were employed by the inhabitants from the pioneer to the modern phases?
  - What important historic themes in the Monument help us better understand the history of the Carrizo Plain, such as dry-land farming, livestock operations, mining, transportation system, education, and social interaction; and how did this affect demographics and ethnic groups represented on the Plain?
  - How did the evolution of agriculture in the Monument transform, including dry-land farming and other farming practice such as Brumley's fruit orchard and Edgar's grape vineyard?
  - How did the introduction of mechanized farming and ranching machinery on the Carrizo Plain, circa 1912, affect the family economy and social interaction; large scale operations verses small family business; expansion of farmland; preferred market products and transportation; and abandonment of the family farm or ranch?
- Pursue research questions pertinent to ethnographic and prehistoric resources such as:
  - What are the cultural affiliations and their demographics on the Carrizo Plain?
  - What adaptive strategies were employed by the indigenous people in their environment over time?
  - What effect did the Mission and Mexican influence have on the demographics of the native population on the Carrizo Plain?
  - What is a predictive model for the occurrence of archaeological site types and their distribution in the Monument? Were these sites occupied on a seasonal and/or long-term basis?
  - Was the Carrizo Plain a primary trade route to the Coast, Central Valley, and beyond, and what goods were exchanged?
  - Was the Pleistocene shoreline of Soda Lake occupied by the early cultures? If not, why?

Objective: Place priority on acquisition of significant cultural resources in the Monument should non-federal land become available.

Management Actions

- Pursue acquisition or cooperative management partnership with the state property located atop Caliente Mountain Peak, including the Caliente Mountain World War II lookout tower for the primary purpose of preserving the wooden structure through stabilization or restoration.

- Pursue acquisition of NRHP-eligible cultural properties in the Monument on private land should the landowner be willing to transfer the parcel to federal ownership.

2.11.2 Alternative 1

2.11.2.1 Painted Rock

Objective: Enhance conservation efforts for long-term preservation.

Management Actions

- The Painted Rock site would be closed to public access. The site would remain open for administrative access for management purposes and to allow Native Americans access for traditional practice and rites pursuant to the *American Indian Religious Freedom Act* and Executive Order 13007, *Indian Sacred Sites*.
- The road to the Painted Rock parking area and trail to Painted Rock site would be subject to temporary or emergency closure to Native American access due to muddy road conditions and during sensitive periods of bird nesting.
- Closure would continue in the Painted Rock pasture to livestock grazing, horses, dogs, non-motorized bikes, cache-type activities, and discharge of firearms.
- Priority for site patrol, monitoring, and surveillance for protection of Painted Rock.
- Conduct archaeological condition assessment and conservation treatment as necessary to preserve rock art paintings and other components of Painted Rock, pursuant to Native American consultation and State Protocol Agreement with SHPO or Section 106 and 110 of the NHPA.

2.11.2.2 At-Risk Archaeological Resources

Objective: Enhance conservation efforts for long-term preservation.

Management Actions

- The archaeological site (C06-1) located on the pyramid-shaped basalt hill on KCL Ranch would be closed to public access. Native American pedestrian access would be allowed pursuant to federal regulations.
- Closure signs would be posted at key points to site C06-1 to deter access.
- Priority to patrol and monitor sites C06-1 and CA-SLO-100 to ensure protection and compliance. Take corrective action such as fencing site C06-1 to deter access if public continues to access site.
- Prehistoric rock art site (CA-SLO-100) located on the Washburn Ranch would remain closed to public access.

2.11.2.3 Rock Art Protection

Objective: Allow rock art to deteriorate as long as it is a natural process.

Management Actions

- Stabilize sites where feasible without treatment intervention to rock art elements.

- No efforts would be made to intervene and reduce or eliminate the process of natural deterioration of rock art. Rock art panels and motifs would be allowed to be affected by the processes of natural deterioration such as wind and water erosion.
- Law enforcement patrol and monitoring of all components of the site would be documented in written and visual media as part of the formal record.
- Rock art condition assessment and cause of deterioration would be fully documented over time in written and visual media format.
- Implement detailed site recordation of archaeological features and rock art elements to preserve site information prior to potential loss of site constituents.
- Place emphasis on educational and preservation awareness, as well as the potential loss of heritage resources, with the public and Native Americans.

2.11.2.4 Public Education, Interpretation, and Archiving

Objective: Focus cultural and natural history interpretive and education awareness information at on-site field locations or at an appropriate viewing distance with less emphasis on multiple indoor public facilities.

Management Actions

- Location and means of public education and interpretation at field locations and at indoor facilities would be compatible with the specific recreation management zone and VRM class.
- Select additional field locations of public interest for interpretive and educational uses pertinent to cultural and natural history values in the CPNM.
- Continue to display cultural resource and natural history information via materials and interpretive signs at on-site locations, by roadsides, or near pedestrian trails at areas such as Painted Rock, Wallace Creek, and El Saucito and Selby ranches.
- Maintain and enhance public education and interpretative information about the Monument's cultural and natural history values at the Goodwin Education Center, or replace it by some other public facility that would provide displays and learning opportunities for children and adults.

2.11.2.5 Ranching/Farming Machinery and Equipment

Objective: Enhance the natural landscape by removing historic machinery and equipment scattered throughout the Monument.

Management Actions

- Place emphasis on the removal of historic machinery and equipment from the landscape. This action would be subsequent to recordation, evaluation, and compliance with Section 106 of the NHPA. Priority for removal would be placed on NRHP-ineligible sites, objects that area hazardous to public health and safety, and equipment that is located in the Primitive recreation management zone. Avoidance of adverse effects to eligible cultural properties would be the priority.
- Continue to relocate selected examples of machinery and equipment scattered in the Monument to centralized locations such as El Saucito and Traver ranches for educational and interpretative uses, as well as protection.

- Limited selection of machinery and equipment would remain in place at ranch facilities and *in situ* field locations in the Monument.

2.11.2.6 Historic Ranching and Farming Buildings and Structures

Objective: Enhancement of the natural landscape by the removal of historic ranching and farming built facilities.

Management Actions

- Priority to restore the natural landscape by removing ranching and farming facilities that do not meet NRHP criteria (36 CFR 60.4). Facility removal would be subject to site recordation, assessment, and adequate mitigation for NRHP properties should such sites be targeted for removal.
- Target removal of buildings and structures in the Monument including sites within the Primitive recreation management zone that have lost their physical integrity, pose a public safety hazard, and are ineligible for the NRHP, pursuant to Sections 106 and 110 of the NHPA or the BLM/SHPO State Protocol Agreement.
- Preserve selected NRHP properties for public enrichment.
- BLM would stabilize, rehabilitate, restore, or reconstruct built facilities previously identified for preservation such as El Saucito, Washburn, and Selby ranches pursuant to Section 110 of the NHPA.
- Educational information such as interpretive signs, kiosks, and brochures would be available to the public at locations such as El Saucito and Selby ranches, or other selected facilities.

2.11.3 Alternative 2 (Preferred)

2.11.3.1 Painted Rock

Objective: Protect Painted Rock while allowing guided groups and self-guided visitor access.

Management Actions

- Painted Rock would be open to guided tours from March 1 through July 15 on a routine schedule with conditions dictating protective measures and conservation ethics while visiting the site.
- A permit would be required for self-guided visitor access from July 16 to the end of February. Permits would include stipulations and conditions identifying protective measures and conservation ethics while visiting the site.
- Monitor and conduct law enforcement patrol of self guided BLM issued permit program to ensure that visitors are complying with the stipulations/conditions that protect sensitive cultural resources. If monitoring and ranger patrol shows that self guided permit program is not adequately protecting the resources, the program would be modified (for example, limit visitors or limit times or days of issuance) or discontinued. If the program were discontinued, access would be limited to guided groups only.
- BLM, the CPNM Native American Advisory Committee, federal tribes, and other Native Americans with ancestral ties to the Carrizo Plain, in a collaborative effort, would develop permit administrative procedures, conditions, stipulations, and checks and balances to ensure permit compliance (for example, ranger patrol, electronic surveillance, monitoring, or other means).

- A Special Recreation Use Permit is required for groups of 20 or more individuals pursuant to 43 CFR 2930. Permits would include stipulations and conditions identifying protective measures and conservation ethics.
- Develop a visitor allocation system to ensure that public visitation would not exceed 25 visitors (as a target) at a time in the rock alcove during guided group visitation or self-guided access.
- Night public access closure would be extended year-round from dusk to dawn.
- Coordinate with the Recreation program to establish a rule to prohibit campfires within the Painted Rock exclusion zone (see Map 2-1, Painted Rock Exclusion Zone) while still allowing for approved Native American ceremonial use of fire.
- The Rock Art Historic District component from Painted Rock to Selby Rocks and the adjacent area would be closed to livestock grazing, horses, dogs, non-motorized bikes (excluding Painted Rock parking area), and cache-type activities, excluding the Selby Road and Caliente Mountain Road. The discharge of firearms would be prohibited for the entire exclusion area consisting of 1,204 acres. See Map 2-1, Painted Rock Exclusion Zone.
- For preservation of Painted Rock, no climbing on the rock, no direct contact (touching) or defacement of rock art, and no collecting or displacing of artifacts, ecofacts, or features would be allowed. Cultural resource researchers could be excluded from some of these conditions if they secure a BLM cultural resource use permit and fieldwork authorization or other form of approval such as a cooperative agreement.
- Access to and atop Painted Rock by other researchers such as wildlife biologists could be authorized on case-by-case basis for valid research proposals. Such authorization would require close coordination with the agency archaeologist and Native Americans. All other requirements listed in the preceding management action would be required.
- The road to the parking area and archaeological site would be subject to temporary or emergency closure without public notice for reasons such as muddy road conditions, during sensitive periods of bird nesting, and to protect resources and cultural values.
- Fences around Painted Rock would be maintained and realigned to encompass the National Register District component between Painted Rock and Selby Cow Camp. Fences fallen into a state of poor repair would be removed if no longer needed, subsequent to recordation and assessment in compliance with Section 106 of the NHPA.
- Prioritize patrol, monitoring, and surveillance actions for protection of Painted Rock.
- Native Americans would be allowed access to the site for traditional uses pursuant to the *American Indian Religious Freedom Act* and Executive Order 13007, *Indian Sacred Site*s, and through advance coordination with BLM.

2.11.3.2 At-Risk Archaeological Resources

Objective: Restrict access and protect sites that are at high risk from human-caused impacts.

Management Actions

- The public would be required to secure a permit from BLM prior to self-guided pedestrian access to archaeological site C06-1 located on the pyramid-shaped basalt hill on KCL Ranch. Rationale: The geological basalt hill formation, a remnant of volcanic activity, has been of interest to geologists, educational groups, and other interested parties for years. The integrity of the cultural property on the hill is at risk as a result of human-caused disturbance, whether it be purposeful or inadvertent.

- Inform the public of permit requirements to access site C06-1. Permits would include stipulations and conditions identifying protective measures and conservation ethics while visiting the site.
- A Special Recreation Use Permit is required for groups of 20 or more individuals to access site C06-1 pursuant to 43 CFR 2930. Permits for visiting the site would include stipulations and conditions identifying protective measures and conservation ethics while visiting the site.
- Native Americans' (with ancestral ties to the Carrizo Plain) pedestrian access would be allowed pursuant to federal regulations.
- All public lands within ¼ mile of Sulphur Spring would remain closed to public access (for protection of archaeological resources) per Federal Register 97:27615, dated October 16, 1997.
- Target patrol and monitoring of sites C06-1 and CA-SLO-100 for protection and compliance. Take corrective action such as fencing or closing site C06-1 to public access if site is threatened by impact.

2.11.3.3 Rock Art Protection

Objective: Enhance conservation efforts for long-term preservation of rock art sites affected by natural agents and inadvertent human impacts to preserve cultural values and provide public enrichment for future generations.

Management Actions

- Develop a rock art preservation plan that would identify and assess the condition of rock art sites at risk of loss to natural agents and inadvertent human impacts. Implement appropriate protection, conservation, and treatment measures to preserve rock art being affected by natural deterioration such as wind and water erosion, rock exfoliation, dust accumulation, or bird excretions. Conservation of rock art would be subject to consultation with Native Americans having ancestral ties to the Carrizo Plain and the CPNM Native American Advisory Committee pursuant to federal regulations and the BLM/SHPO State Protocol Agreement.
- Reduce the rate of natural and human impacts to rock art by implementing measures such as dust abatement on roads and trails; installation of physical barriers, boardwalks, and interpretive panels; or other preservation measures to manage public access to sites, such as maintaining a safe distance from rock art panels and motifs.
- Prioritize law enforcement patrol and monitoring of all site components and document in written and visual media for management purposes.
- Rock art condition assessments and cause of deterioration would be fully documented over time in written and visual media format.
- Implement detailed site recordation of archaeological features and rock art elements to preserve site information prior to potential loss of site constituents should conservation measures be unsuccessful or not implemented.
- Provide interpretive and educational awareness to the public and Native Americans to preserve heritage resource values.

2.11.3.4 Public Education, Interpretation, and Archiving

Objective: Focus cultural and natural history interpretive and education awareness information at on-site field locations or an appropriate viewing distance with less emphasis on multiple indoor public facilities.

Management Actions

- Location and means of public education and interpretation at field locations and at indoor facilities would be compatible with the specific recreation management zone and VRM class.
- Additional field locations of public interest would be selected for interpretive and educational uses pertinent to cultural and natural history values in the CPNM.
- Cultural resource and natural history information would continue to be displayed via informational and interpretive signs and brochures at on-site locations, roadsides, or pedestrian trails at areas such as Painted Rock, Wallace Creek, and El Saucito and Selby ranches.
- Public education and interpretative information about the cultural and natural history values in the Monument would be maintained and enhanced at the Goodwin Education Center or replaced by some other public facility that would provide displays and learning opportunities for the public.
- As part of a comprehensive interpretive plan for the Monument, analyze the feasibility of developing a new or expanded public interpretive and educational center in the Monument that would accommodate group uses and researchers. Considerations would include expanding the floor space at the Goodwin Education Center, reconstruction of the 1890s barn at El Saucito Ranch, or construction at some other viable location in the Monument. Public use, scientific research, interpretive and educational programs, and archival storage needs would be considered in the analysis.

2.11.3.5 Ranching/Farming Machinery and Equipment

Objective: Retain selected representative examples of historic machinery and equipment *in situ* in the Monument as part of the historic landscape.

Management Actions

- Selected historic machinery and equipment would remain in place in the field for public visitation and educational awareness of past land uses with less emphasis placed on relocating additional items to centralized locations such as the Traver Ranch and the Goodwin Education Center.
- Provide educational information to the public about the historic machinery and equipment through field-specific interpretive signs, kiosks, or brochures as compatible with the recreation management zone objectives.
- Assess the condition and safety of leaving machinery and equipment scattered across the Monument. If items pose a safety hazard, such items would be slated for removal from the Monument. Removing or relocating items would be documented and assessed *in situ* prior to removal pursuant to compliance with Section 106 of the NHPA.

2.11.3.6 Historic Ranching and Farming Buildings and Structures

Objective: Emphasize the preservation of historic ranching and farming buildings and structures in the Monument.

Management Actions

- Place emphasis on the preservation of historic resources for public enrichment and only target removal for sites that pose a public safety hazard and are ineligible for the NRHP, pursuant to Section 106 and 110 of the NHPA (36 CFR 800) or the BLM/SHPO State Protocol Agreement.
- Restore, rehabilitate, stabilize, or reconstruct historic ranching and farming buildings and structures that are eligible for the NRHP. Provide interpretive information about historic facilities to the public at selected NRHP sites.

- Historic buildings or structures ineligible for inclusion on the NRHP may be interpreted but would be razed or removed if compromised to the point that physical integrity no longer exists and the facility poses a safety hazard. Buildings such as the Traver Ranch may be saved from demolition and stabilized for its values associated with wildlife resources and dry-land farming interpretive uses.
- Emphasis placed on restoring, rehabilitating, stabilizing, or reconstructing sites such as El Saucito, Washburn, and Selby ranches. For public enrichment, provide educational information such as interpretive signs, kiosks, and brochures pertinent to these ranches and other selected facilities.

2.11.4 Alternative 3

2.11.4.1 Painted Rock

Objective: Protect Painted Rock while allowing guided group visitor access.

Management Actions

- Painted Rock would be open to guided tours only. Tours would be conducted on a routine schedule and increased above current levels to offset impacts of not allowing self-guided access.
- Painted Rock and Painted Rock Pasture would be closed to self-guided public access year-round (no permits available) and night access closure would be extended year-round from dusk to dawn.
- Public visitation not to exceed 25 visitors at a time (as a target) in the rock alcove via guided group access.
- Closure would continue in the Painted Rock Pasture to livestock grazing, horses, dogs, non-motorized bikes, cache-type activities, and the discharge of firearms.
- For preservation of Painted Rock, no climbing on the rock, no direct contact (touching) or defacement of rock art, and no collecting or displacing of artifacts, ecofacts, or features would be allowed. Cultural resource researchers could be excluded from some of these conditions if they secure a BLM cultural resource use permit and fieldwork authorization or other form of approval such as a cooperative agreement.
- Access to and atop Painted Rock by other researchers such as wildlife biologists could be authorized on a case-by-case basis for valid research proposals. Such authorization would require close coordination with the agency archaeologist and the Native Americans. All other requirements in the preceding management action would be required.
- The road to the parking area and Painted Rock would be subject to temporary or emergency closure without public notice for reasons such as muddy road conditions, during sensitive periods of bird nesting, and to protect resources and cultural values.
- Continue site patrol, monitoring, and surveillance actions for protection of Painted Rock.
- Painted Rock would remain open for Native Americans (with ancestral ties to the Carrizo Plain) to access the site for traditional uses pursuant to the *American Indian Religious Freedom Act* and Executive Order 13007, *Indian Sacred Sites*, and through advance coordination with BLM.

2.11.4.2 At-Risk Archaeological Resources

Same as Alternative 2. Refer to Section 2.11.3.2.

2.11.4.3 Rock Art Protection

Same as Alternative 2. Refer to Section 2.11.3.3.

2.11.4.4 Public Education, Interpretation, and Archiving

Objective: Focus cultural interpretative and educational opportunities at multiple indoor public facilities as well as at field locations.

Management Actions

- Locate public education and interpretation at indoor public facilities and field locations that are compatible with the specific recreation management zone and VRM class.
- As part of a comprehensive interpretive plan for the Monument, analyze the feasibility of developing a new or expanded public interpretive and educational center in the Monument that would accommodate group uses and researchers. Considerations would include the expanding the floor space at the Goodwin Education Center, or reconstruction of the 1890s barn at El Saucito Ranch, or construction at some other viable location in the Monument. Public use, scientific research, interpretive and educational programs, and archival storage needs would be considered in the analysis.
- Public education and interpretation would continue at the Goodwin Education Center by providing public exhibits and hands-on learning experiences for children and adults pertinent to cultural and natural history values.
- Cultural and natural history information signs and brochures would continue to be available at established on-site locations, by roadsides, or near pedestrian trails in areas such as Painted Rock, Wallace Creek, and El Saucito and Selby ranches. New information would be developed as part of a comprehensive interpretive plan.

2.11.4.5 Ranching/Farming Machinery and Equipment

Same as Alternative 2. Refer to Section 2.11.3.5.

2.11.4.6 Historic Ranching and Farming Buildings and Structures

Objective: Historic ranching and farming buildings and structures would be managed in a state of arrested decay (stabilized).

Management Actions

- NRHP properties would be stabilized for public enrichment. Other sites that pose a public safety hazard and are ineligible for the NRHP would be removed or razed, pursuant to Section 106 and 110 of the NHPA or the BLM/SHPO State Protocol Agreement.
- Historic ranching and farming facilities would be stabilized rather than restored, rehabilitated, or reconstructed. NRHP-eligible properties would have priority over ineligible buildings and structures.
- BLM would maintain and stabilize ranches such as El Saucito, Washburn, KCL, and Selby. Educational information such as interpretive signs, kiosks, and brochures about the history of these ranches and potentially other sites would be available to the public when compatible with the recreation management zone objectives.

- Historic buildings and structures not meeting NRHP criteria would be razed or removed if toppled or compromised to the point that physical integrity no longer exists and the facility is a safety hazard, pursuant to federal regulations or the BLM/SHPO State Protocol Agreement.

2.11.5 No Action Alternative

2.11.5.1 Cultural Resource Management Goals and Objectives

Goal: Protect cultural resources.

Objectives

- Monitor impacts to cultural resources and the effectiveness of protection strategies.
- Stabilize reconstruct maintain and protect significant cultural properties appropriate to conditions of the site.

Goal: Provide an opportunity for partnerships, research, interpretation, and education for the public and the scientific community.

Objective

- Solicit and encourage partnerships, research, interpretation, and educational efforts associated with cultural resources.

2.11.5.2 Native American Uses

Goal: Provide the opportunity for Native Americans to participate in planning and consultation processes by identifying their cultural, religious, and traditional values which could be affected by proposed management actions. Access to "traditional use areas" by Native Americans with cultural and traditional ties to this region is fully supported and encouraged by the managing partners.

Objectives:

- Identify and establish communication with Native American groups and individuals having traditional and cultural ties to the Carrizo.
- Preserve the opportunity for Native Americans to practice traditional beliefs within the Carrizo.

2.11.5.3 Painted Rock Management Actions

- Painted Rock cultural site access would continue to be open to guided tours only (no self-guided access) from March 1 through July 15 for the protection of cultural and wildlife resource values during the peak period of public tourism in the CPNM (on the average, 18 public tours would be provided annually). The site would be open to guided tours, not to exceed 25 visitors at a time in the rock alcove.
- Painted Rock would continue to be open to self-guided access from July 16 to the end of February. A Special Recreation Use Permit would be required for self-guided groups of 20 or more visitors.
- Closure would continue in the Painted Rock Pasture to livestock grazing, horses, dogs, non-motorized bikes, cache-type activities, and the discharge of firearms.
- For preservation of Painted Rock, no climbing on the rock, no direct contact (touching) or defacement of rock art, and no collecting or displacing of artifacts, ecofacts, and features would be allowed.

- The road to the parking area and the site would continue to be subject to temporary or emergency closure without public notice due to muddy road conditions, during sensitive periods of bird nesting, and to protect cultural and natural resource values.
- Night access closure is effective at Painted Rock from March 1 through July 15 (4.5 months per year).
- Painted Rock Pasture fence would be maintained and realigned to encompass the National Register District component between Painted Rock and Selby Cow Camp. Fences fallen into a state of poor repair would be removed if no longer needed, subsequent to recordation and assessment in compliance with Section 106 of the NHPA.
- Continue site patrol, monitoring, and surveillance actions for protection of Painted Rock.
- Painted Rock is open to administrative access for management purposes and to allow Native Americans access to the site for traditional uses pursuant to the *American Indian Religious Freedom Act* and Executive Order 13007, *Indian Sacred Sites*.

2.11.5.4 At-Risk Archaeological Resources Management Actions

- The vision quest/shrine archaeological site (C06-1) located on the pyramid-shaped basalt hill on KCL Ranch would remain open to public access.
- The prehistoric rock art site (CA-SLO-100) located in the Sulphur Spring pasture would remain closed to public access. This site was previously closed due to its extremely fragile condition and high potential for inadvertent impacts to the site associated with access.
- Any NRHP-eligible archaeological property at risk would be subject to emergency closure for site preservation pursuant to federal regulations.

2.11.5.5 Rock Art Protection Management Actions

- No conservation by intervention has been or likely would be implemented to reduce the rate of natural deterioration to rock art panels and individual motifs affected by natural processes such as wind and water erosion. Condition assessment of rock art would continue to be conducted and conservation methods identified and considered for application of treatment.
- Law enforcement patrol and monitoring of site conditions would continue to be documented in written and visual media as part of the formal record.
- Detailed site recordation of archaeological features and rock art would continue to be implemented as a means to preserve site information prior to potential loss of site constituents should conservation measures prove not to be successful or implemented.
- Interpretive and educational awareness to preserve heritage resources would be provided to the public.

2.11.5.6 Public Education, Interpretation, and Archiving Management Actions

- Public education and interpretation at indoor facilities in the Monument would be limited to the Goodwin Education Center. The center would continue to provide public exhibits, hands-on learning experiences for children and adults, and limited archival storage space. The exhibits and diorama would provide educational information about the resources values in the Monument such as cultural and natural history values.

- Cultural resource information displayed via signs, kiosks, and brochures would be available at on-site locations, by roadsides, or near pedestrian trails in areas such as Painted Rock, Wallace Creek, and El Saucito and Selby ranches.

2.11.5.7 Ranching/Farming/Mining Machinery and Equipment Management Actions

- Selected examples of machinery and equipment scattered in the Monument associated with historic ranching, farming, and mining activities would continue to be removed and relocated on a selected basis to centralized locations such as the Traver, El Saucito, and Washburn ranches and the Goodwin Education Center, for purposes of safe keeping and educational uses.
- Some farming and ranching machinery and equipment would continue to be removed from the Monument where these objects are a safety hazard or are in such poor condition that they have lost their physical integrity. Prior to removal or relocation, aforementioned items would be documented and assessed *in situ* pursuant to compliance with Section 106 of the NHPA.
- Some machinery and equipment, such as farming diskers and harvesters, would continue to remain in place at ranch facilities and *in situ* field locations scattered across the Monument.

2.11.5.8 Historic Ranching and Farming Buildings and Structures Management Actions

- BLM would continue to stabilize and rehabilitate buildings and structures at the El Saucito, Washburn, KCL, and Selby ranches.
- Buildings or structures would be razed or removed if toppled or compromised to the point that physical integrity no longer existed and the facility is a safety hazard.
- Educational information such as interpretive signs, kiosks, and brochures about these structures would be available to the public at the El Saucito, KCL, Washburn, and Selby ranches.

2.11.5.9 Education and Interpretive Center for Cultural and Natural Resources Management Actions

- The Goodwin Education Center would continue at the current level as the only public building that provides a point of contact in the Monument for visitors. The two-room facility would continue to provide limited space for archival storage, public exhibits, a gift shop, and information about the natural and cultural values in the Monument.
- The facility would be open only during the peak visitor season.
- Public tours and events in the Monument would continue to be scheduled through staff at the Center.

2.12 Visual Resources

The vast open vistas and stark landscapes of the CPNM are primary attributes that the public is concerned with protecting as reflected in the scoping comments. Public lands within the National Monument have been inventoried using BLM's VRM classification system. Through the RMP process, BLM assigns VRM management classes to all public lands in the planning area. Each class allows for landscape changes from management activities and use authorizations that contrast at different levels with the existing characteristic landscapes. In all situations, actions are taken to minimize visual contrasts through careful project design.

2.12.1 VRM Class Definitions

Class I: The objective of this class is to preserve the existing character of the landscape. This class allows for natural ecological changes and only very limited types of management activities and uses. Any contrasts with the natural landscape must be minimal and not attract attention. This class is typically limited to designated wilderness, wilderness study areas, or wild and scenic river segments with a "Wild" classification.

Class II: The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities and uses can be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture in the predominant natural features of the characteristic landscape.

Class III: The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape can be moderate. Management activities and uses may attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements of the predominant natural features of the landscape.

Class IV: The objective of this class is to allow for management activities and uses requiring major modifications to the natural landscape. The level of change to the characteristic landscape can be high. Management activities and uses may dominate the view and be a major focus of viewer attention. However, every attempt should be made to mitigate the impacts of activities through careful location and repeating the visual elements of the landscape.

2.12.2 Goal, Objectives, and Management Actions Common to All Action Alternatives

2.12.2.1 Goal

Protect and restore the unique scenic quality of the CPNM landscape.

2.12.2.2 Objectives and Management Actions

Objective: Conduct management activities and complete developments in a manner that is sensitive to the visual qualities of the area.

Management Actions

- Complete visual contrast ratings for all proposed surface or visually impacting projects to ensure they meet VRM class objectives.
- Complete visual contrast ratings for existing roads and facilities and identify opportunities to reduce existing visual impacts through modifications such as painting water tanks, removing unneeded facilities.
- Complete an inventory of existing and potential key scenic vista points along roads and trail corridors within the CPNM and identify opportunities to develop and improve these locations as overlooks and interpretive sites.

Objective: Minimize light pollution to retain the area's night sky qualities.

Management Actions

- Limit exterior lighting of BLM administrative facilities to the minimum necessary for safety and security. Use lighting types and shields that minimize light pollution.

- Work with adjoining communities (California Valley) to minimize light sources that impact the Monument.

2.12.3 Alternative 1

Note: VRM zone boundaries correspond to recreation management zones. See Map 2-2, Recreation Management Zones and Route Designations, Alternative 1.

2.12.3.1 Primitive Zone

Objective: Manage the 83,202-acre Primitive zone as VRM Class I.

Management Action

- Conduct visual contrast ratings and ensure that all projects meet VRM Class 1 requirements.

2.12.3.2 Backcountry Zone

Objective: Manage the 158,080-acre Backcountry zone as VRM Class II.

Management Actions

- Conduct visual contrast ratings on all projects. Ensure that projects are implemented and any new facilities constructed to meet VRM Class II objectives.
- Encourage retrofitting of existing facilities to comply with VRM Class II objectives by working in partnership with existing right-of-way holders (such as communication sites) and oil and gas lessees. Incorporate mitigation measures, such as repainting existing facilities, and carefully locating and designing new facilities (such as by using topographic screening) to minimize their contrast with the characteristic landscape.

2.12.3.3 Frontcountry Zone

Objective: Manage the 17,040-acre Frontcountry zone as VRM Class III.

Management Actions

- Conduct visual contrast ratings on all projects. Ensure that projects are implemented and any new facilities constructed to meet VRM Class III objectives.
- Encourage retrofitting of existing facilities to comply with VRM Class III objectives by working in partnership with existing right-of-way holders (such as communication sites) and oil and gas lessees. Incorporate mitigation measures, such as repainting existing facilities, and carefully locating and designing new facilities (such as by using topographic screening) to minimize their contrast with the characteristic landscape.

2.12.4 Alternative 2 (Preferred)

Note: VRM zone boundaries correspond to recreation management zones. See Map 2-3, Recreation Management Zones and Route Designations, Alternative 2.

2.12.4.1 Primitive Zone

Objective: Manage the 54,464 -acre Primitive zone as VRM Class I.

Management Action

- Conduct visual contrast ratings and ensure that all projects meet VRM Class 1 requirements.

2.12.4.2 Backcountry Zone

Objective: Manage the 186,819 -acre Backcountry zone as VRM Class II.

Management Actions

- Conduct visual contrast ratings on all projects. Ensure that projects are implemented and any new facilities constructed to meet VRM Class II objectives.
- Encourage retrofitting of existing facilities to comply with VRM Class II objectives by working in partnership with existing right-of-way holders (such as communication sites) and oil and gas lessees. Incorporate mitigation measures, such as repainting existing facilities, and carefully locating and designing new facilities (such as by using topographic screening) to minimize their contrast with the characteristic landscape.

2.12.4.3 Frontcountry Zone

Objective: Manage the 20,839-acre Frontcountry zone as VRM Class III.

Management Actions

- Conduct visual contrast ratings on all projects. Ensure that projects are implemented and any new facilities constructed to meet VRM Class III objectives.
- Encourage retrofitting of existing facilities to comply with VRM Class III objectives by working in partnership with existing right-of-way holders (such as communication sites) and oil and gas lessees. Incorporate mitigation measures, such as repainting existing facilities, and carefully locating and designing new facilities (such as by using topographic screening) to minimize their contrast with the characteristic landscape.

2.12.5 Alternative 3

Note: VRM zone boundaries correspond to Recreation Management Zones. See Map 2-4, Recreation Management Zones and Route Designations, Alternative 3.

Objectives and Management Actions: Same as Alternative 2 with the following acreages:

- Primitive zone: (Class I): 17,984 acres.
- Backcountry zone (Class II): 223,299 acres.
- Frontcountry zone (Class III): 24,944 acres.

2.12.6 No Action Alternative

Most of the CPNM would be managed as VRM Class II except for a majority of the Temblor Mountain Range, which is classified as VRM Class III. Some areas along the border of the Monument area would be managed as VRM Class IV.

2.13 Wilderness Study Areas and Other Lands with Wilderness Characteristics

Management of lands with wilderness characteristics is part of BLM's multiple use mandate. Lands within the CPNM were inventoried in 2002 in accordance with BLM Handbook 6310-1 *Wilderness Inventory and Study Procedures*. Six distinct areas were inventoried for wilderness characteristics such as naturalness, opportunities for solitude, primitive and unconfined recreation, and other associated qualities. Two of these areas were identified as having all of the on-the-ground qualities and conditions making up wilderness character. During the current planning effort, the 2002 inventory was reviewed, and additional management actions were included in the alternatives to be implemented over the life of the plan to restore additional locations adjoining these areas and to manage them to protect wilderness character (depending on the selected alternative). In addition to these newly inventoried areas, the 17,984-acre Caliente Mountain WSA (CA-010-042) would not be affected by this RMP and would continue to be managed under BLM's *Interim Management Policy for Lands under Wilderness Review*.

2.13.1 Goal, Objectives, and Management Actions Common to All Action Alternatives

2.13.1.1 Goal

Manage the Caliente Mountain WSA to preserve its wilderness qualities.

2.13.1.2 Objectives and Actions

Objective: Manage the Caliente Mountain WSA so as not to impair the area's suitability for wilderness designation.

Management Action: All BLM initiated or authorized actions in the Caliente Mountain WSA will follow BLM's *Interim Management Policy for Lands under Wilderness Review* (Wilderness Handbook 6310-1).

If released from further consideration by Congress for wilderness designation, the Caliente Mountain WSA would continue to be managed to protect wilderness character under the guidance of this RMP (Appendix H, Management of Lands with Wilderness Character), unless the Congressional release language explicitly states otherwise.

2.13.2 Alternative 1

2.13.2.1 Objective

Manage all lands inventoried and identified as having potential wilderness characteristics (approximately 65,218 acres) so as not to impair their natural character. (See Map 2-5, Lands Having Wilderness Characteristics.)

2.13.2.2 Management Actions

- All activities will follow the guidelines contained in Appendix H, Management of Lands with Wilderness Character.
- Conduct active restoration activities to remove unnatural features
- Limited use roads located within areas to be managed for wilderness character will be used for administrative purposes only when non-motorized access is not feasible for specific projects (such as repairs that require heavy tools and materials). Closed routes will be rehabilitated or converted into non-mechanized trails.

2.13.2.3 Allowable Uses

Appropriate public use would include non-motorized and non-mechanized activities such hiking, equestrian use, hunting, and dispersed camping.

2.13.3 Alternative 2 (Preferred)

2.13.3.1 Objective

Manage the Caliente Mountain WSA and the Temblor unit for wilderness characteristics (approximately 36,480 acres) so as not to impair their natural character. (See Figure 2-5, Lands Having Wilderness Character.)

2.13.3.2 Management Actions

- All activities in areas managed for wilderness characteristics will follow the guidelines contained in Appendix H, Management of Lands with Wilderness Character.
- Conduct active restoration activities to remove unnatural features
- Limited use roads located within areas to be managed for wilderness character will be used for administrative purposes only when non-motorized access is not feasible for specific projects (such as repairs that require heavy tools and materials). Closed routes will be rehabilitated or converted into non-mechanized trails.

2.13.3.3 Allowable Uses

Appropriate public use would include non-motorized and non-mechanized activities such hiking, equestrian use, hunting, and dispersed camping.

2.13.4 Alternative 3

2.13.4.1 Objective

The 17,984-acre Caliente Mountain WSA would continue to be managed so as not to impair the area's suitability for preservation as wilderness. (See Map 2-5, Lands Having Wilderness Characteristics.)

2.13.4.2 Management Action

All BLM initiated or authorized actions in the Caliente Mountain WSA will follow BLM's *Interim Management Policy for Lands under Wilderness Review* (Wilderness Handbook 6310-1).

2.13.5 No Action Alternative (Same as Alternative 3)

2.13.5.1 Objective

The 17,984-acre Caliente Mountain WSA would continue to be managed to so as not to impair the area's suitability for preservation as wilderness.

2.13.5.2 Management Action

All BLM initiated or authorized actions in the Caliente Mountain WSA will follow BLM's *Interim Management Policy for Lands under Wilderness Review* (Wilderness Handbook 6310-1).

2.14 Areas of Critical Environmental Concern

FLPMA requires BLM to identify lands with significant and sensitive resource values for protective management as ACECs. Prior to designation as a National Monument, the Carrizo Plain was designated as an ACEC in the Caliente RMP (1996). The presidential proclamation identifies and requires protection of the same values that were identified under the ACEC designation. Therefore, the ACEC designation is now considered to be duplicative and no longer necessary for lands within the boundary of the CPNM. Lands outside the CPNM boundary are outside the scope of this plan and will be assessed in the Caliente RMP regarding continued management as an ACEC.

2.14.1 Management Action Common to All Action Alternatives

Designation: The Carrizo ACEC designation would be dropped for all lands within the National Monument boundary.

2.14.2 No Action Alternative

Designation**:** The Carrizo Plain would continue to be designated as an ACEC under the Caliente RMP.

2.15 Livestock Grazing

This section describes where livestock are allowed or not allowed to graze within the Monument. In this document, livestock are defined as a species of domestic livestock including cattle, sheep, horses, burros, and goats.

BLM land use plans must identify which lands will be available or not available for livestock grazing (see the allowable uses for each grazing alternative, below). For lands allocated as unavailable for livestock grazing, any level of livestock grazing under any type of management would be incompatible with land use plan goals. In this RMP, we have further divided the lands available for livestock grazing into two sub-categories: those lands where livestock use is allowed to utilize available forage, and those lands where livestock are allowed only as a vegetation management tool, which meets objectives other than the production of livestock forage.

RMPs must also identify area-wide criteria or standards to achieve desired outcomes (see the goals and objectives common to all grazing alternatives, below). These standards were developed to ensure that management actions fulfill the purpose of the Proclamation. Changes to the land use allocation or the area-wide standards require amending the RMP.

This section of the plan also includes implementation-level actions that identify allotment-specific grazing management practices or livestock management guidelines, as well as constraints and needs related to other resources (see the actions for each grazing alternative, below). These livestock management guidelines have been developed to achieve the plan objectives and vary in their application by alternative. Changes to these livestock management guidelines require documentation of NEPA compliance and the application of the administrative grazing decision process defined in the regulations.

In areas designated as “available for livestock grazing,” federal grazing regulations (43 CFR 4100) provide uniform guidance for administering grazing on the public lands administered by BLM. The authority for implementing these regulations is mainly from the *Taylor Grazing Act* of June 28, 1934 as amended (43 USC 315, 315a- through 315r and FLPMA as amended by the *Public Rangelands Improvement Act* of 1978 (43 USC 1901 et seq.). Additionally, the Monument Proclamation states that

"Laws, regulations, and policies followed by the Bureau of Land Management in issuing and administering grazing permits or leases on all lands under its jurisdiction shall continue to apply with regard to the lands in the monument."

Livestock grazing within the Monument is currently managed under two separate types of authorizations utilizing different sub parts of the federal grazing regulations (43 CFR 4100). Approximately 55,900 acres are available under Section 15 livestock grazing leases (Section 15 of the *Taylor Grazing Act*), principally in the Temblor and Caliente Mountain Ranges, where livestock use is allowed to utilize available forage. For clarification in this document, these grazing leases may be referred to as "Section 15" grazing leases. Grazing primarily on the valley floor (approximately 114,200 acres), where livestock are allowed only as a vegetation management tool, which meets objectives other than the production of livestock forage, is currently authorized under authorizations referred to as "free use" grazing permits (authorized in 43 CFR 4130.5(b)). Livestock grazing in this vegetation management area could also be authorized through other mechanisms such as nonrenewable grazing leases or stewardship contracts. Grazing permits or leases authorize grazing use on specific management units, which are referred to as grazing "allotments". These allotments are depicted on Map 3.12, Grazing Allotments. See Section 3.13 in Chapter 3 for further discussion of grazing authorizations.

2.15.1 Goal, Objectives, and Management Actions Common to All Action Alternatives

2.15.1.1 Goal

- Manage all livestock grazing (either as an allowable use, such as a Section 15 grazing lease, which utilizes livestock forage, or as a vegetation management tool, such as a free use grazing permit, which meets objectives other than the production of livestock forage) in a manner that protects the objects of the Proclamation.

2.15.1.2 Objectives and Management Actions

Objective: Manage livestock grazing to meet or exceed the Secretary-approved Central California Standards for Rangeland Health as shown in Appendix E.

Management Action

- Assess all grazing allotments to determine if they are meeting the Standards for Rangeland Health.
  - Adjust livestock grazing authorizations in response to assessment determinations if not meeting Standards for Rangeland Health.

- Apply the relevant Secretary-approved Central California Rangeland Health Guidelines for Grazing Management as implementation is described in the Record of Decision of 1999 (Appendix E) to grazing authorizations on all areas.

Objective: Manage livestock grazing to meet, and to not be in conflict with, the management objectives for all other resources and programs in the Monument.

Management Action

- Determine resource impacts from livestock grazing (negative or positive) through monitoring or scientific study, including within Section 15 grazing allotments, to help inform future decisions on land use designations and to assess if livestock grazing is meeting other program objectives including those biological objectives identified in Appendix C (Conservation Target Table). Monitoring may be

broad-scale or species-specific. Scientific studies will be developed with the managing partners and input from the scientific community and other technical experts on the design, implementation, data analysis, and summary of the results. In accordance with adaptive management principles and applicable regulations, the results would be used to take action (for example, continue, modify, or eliminate grazing authorizations in these areas).

  – Adjust livestock grazing authorizations as necessary in response to monitoring or scientific study determinations if they are conflicting with other resources or program objectives.

- Monitor compliance with relevant grazing management guidelines.

  – Adjust livestock grazing authorizations as necessary in response to compliance monitoring.

- Move the boundary fence to the official Monument boundary when resource benefits outweigh resource damage associated with fence construction or removal.

2.15.2 Alternative 1

2.15.2.1 Objective

Remove all livestock grazing as both an allowable use that utilizes livestock forage, and also as a vegetation management tool that meets objectives other than the production of livestock forage.

2.15.2.2 Allowable Uses

- Allocate all lands (approximately 201,900 acres), except for those that fall between the existing fence line and the Monument boundary, as “unavailable for any livestock grazing” (see Map 2-6, Alternative 1: Livestock Grazing).
- Approximately 4,600 acres of grazing would occur where pasture/allotment boundary fences do not correlate with the Monument boundary. These lands would be allocated as “available for livestock grazing” (see Map 2-6, Alternative 1: Livestock Grazing).
- Allocate any newly acquired lands as either "available for livestock grazing" or "unavailable for any livestock grazing" based on the purpose for which the lands were acquired, which allocation is in the best interest of achieving the land use plan goals, and considering the allocation of the existing lands within the surrounding livestock management unit. New or modified fencing may be employed to implement the new allocation if it is in conflict with the allocation for the rest of the pasture.
- Should the fences be re-aligned to match the monument boundary in the future, re-designate the lands within the monument as “unavailable for any livestock grazing”.

2.15.2.3 Management Actions

- Cancel any existing grazing authorizations on lands made “unavailable for any livestock grazing”.
- Authorize livestock grazing on the approximately 4,600 acres of lands remaining between the fences and the boundary and designated as "available for livestock grazing" at levels up to those shown on the Grazing Implementation Table (see Appendix Q, Grazing Implementation Table for Alternative 1).
- To the approximately 4,600 acres of lands remaining under a grazing authorization, apply the relevant Specific Livestock Management Guidelines in Appendix U. (Same as No Action.)

- Evaluate livestock management facilities for utility for other purposes and then remove those that were only used to support livestock grazing as a use or as a management tool.
- Maintain perimeter fences to exclude livestock use from outside the monument.

2.15.3 Alternative 2 (Preferred Alternative)

2.15.3.1 Objective

Continue existing livestock authorizations as required, but strive to utilize livestock grazing in the Monument only as a vegetation management tool, which meets objectives other than the production of livestock forage.

2.15.3.2 Allowable Uses

- Allocate 55,900 acres as "available for livestock grazing" (see Map 2-7, Alternatives 2 and 3: Livestock Grazing) pending any future voluntary relinquishments as described below.
- Allocate 117,500 acres as "available for livestock grazing, but only for the purpose of vegetation management" (see Map 2-7). (Same as Alternative 3.)
- Allocate 33,100 acres as "unavailable for any livestock grazing" (see Map 2-7). (Same as Alternative 3.)
- Upon receiving any request for voluntary relinquishment of grazing permitted use from a Section 15 lease, the Authorized Officer will re-evaluate whether livestock grazing is in the best interest of achieving the land use plan goals. All or part of the relinquished permitted use will be re-allocated as "available for livestock grazing, but only for the purpose of vegetation management" and made available to qualified applicants. Should the Authorized Officer examine and document that continued livestock use of all or part of that forage allocation would not be compatible with achieving RMP management goals and objectives, that forage allocation will be re-allocated as "unavailable for any livestock grazing."
- Allocate any newly acquired lands as either "available for livestock grazing," "available for livestock grazing, but only for the purpose of vegetation management," or "unavailable for any livestock grazing" based on the purpose for which the lands were acquired, which allocation is in the best interest of achieving the land use plan goals, and considering the allocation of the existing lands within the surrounding livestock management unit. New or modified fencing may be employed to implement the new allocation if it is in conflict with the allocation for the rest of the pasture.

2.15.3.3 Management Actions

- Authorize livestock grazing according to the land use designation and at levels up to those shown on the Grazing Implementation Table (Appendix R).
- Apply the relevant Grazing Management Guidelines for the Carrizo Plain National Monument (see the Conservation Target Table, Appendix C) to all grazing authorizations. (See current guideline/pasture matrix in Appendix V and the location of current pastures on Map 3-13.)
- Create, modify, maintain, or remove livestock management facilities to support livestock grazing as a use or as a management tool, or to meet other resource objectives, such as the protection of NRHP properties, riparian areas, sensitive plant populations, visual resources, the ingress and egress of wildlife, control noxious weeds, and the resolution of monument boundary issues.

2.15.4 Alternative 3

2.15.4.1 Objective

Improve opportunities for livestock grazing only in areas where it is an allowable use that utilizes livestock forage, and continue livestock grazing as a vegetation management tool that meets objectives other than the production of livestock forage.

2.15.4.2 Allowable Uses

- Allocate 55,900 acres as “available for livestock grazing” (see Map 2-7, Alternatives 2 and 3: Livestock Grazing).
- Allocate 117,500 acres as “available for livestock grazing, but only for the purpose of vegetation management” (see Map 2-7). (Same as Alternative 2.)
- Allocate 33,100 acres as “unavailable for any livestock grazing” (see Map 2-7). (Same as Alternative 2.)
- Allocate any newly acquired lands as either "available for livestock grazing," "available for livestock grazing, but only for the purpose of vegetation management," or "unavailable for any livestock grazing" based on the purpose for which the lands were acquired, which allocation is in the best interest of achieving the land use plan goals, and considering the allocation of the existing lands within the surrounding livestock management unit. New or modified fencing may be employed to implement the new allocation if it is in conflict with the allocation for the rest of the pasture.

2.15.4.3 Management Actions

- Authorize livestock grazing according to the land use designation and at levels up to those shown on the Grazing Implementation Table (Appendix S, Grazing Implementation Table for Alternative 3).
- Apply the relevant Specific Livestock Management Guidelines in Appendix U to grazing authorizations on Section 15 allotments. (Same as No Action.)
- Apply the relevant Grazing Management Guidelines for Vegetation Management Areas within the CPNM (see the Conservation Target Table, Appendix C) to grazing authorizations on vegetation management areas. (See current guideline/pasture matrix in Grazing Appendix V and the location of current pastures on Map 3-13.) (Same as Alternative 2.)
- Create, modify, maintain, or remove livestock management facilities to support increased livestock grazing as a use (that is, encourage actions such as the development of new water sources or modification of fences to improve livestock distribution, provide longer seasons, or improve annual forage reliability).

2.15.5 No Action

2.15.5.1 Objective

Continue the existing livestock grazing as both an allowable use that utilizes livestock forage, and also as a vegetation management tool that meets objectives other than the production of livestock forage.

2.15.5.2 Allowable Uses

- 170,100 acres would remain "available for livestock grazing" as provided in the Caliente RMP (see Map 2-8, No Action Alternative: Livestock Grazing).
- 36,400 acres would remain "unavailable for any livestock grazing" as provided in the Caliente RMP (see Map 2-8).
- Allocate any acquired lands as either "available for livestock grazing" or as "unavailable for any livestock grazing" based on the purpose for which the lands were acquired, and on the existing allocation of lands within the surrounding livestock management unit.

2.15.5.3 Management Actions

- Authorize livestock grazing according to the land use designation and at levels up to those shown on the Grazing Implementation Table (see Appendix T, Grazing Implementation Table for No Action).
- Apply the relevant Specific Livestock Management Guidelines in Appendix U to grazing authorizations on Section 15 allotments. (Same as Alternatives 1 and 3.)
- Apply the relevant Grazing Management Guidelines for the Carrizo Plain as detailed in the annually derived Pasture/Guideline Matrix (Appendix M) to grazing authorizations on vegetation management areas.
- Create, modify, maintain, or remove livestock management facilities to support livestock grazing as a use or as a management tool, or to meet other resource objectives, such as the protection of National Register properties, riparian areas, sensitive plant populations, control of noxious weeds, visual resources, the ingress and egress of wildlife, and the resolution of monument boundary issues.

2.16 Recreation and Interpretation

The CPNM is a destination for a relatively small number of visitors annually, considering its proximity to southern and central California population centers. The majority of visitors come to directly experience the stark natural beauty and cultural significance unique to this landscape as opposed to the pursuit of leisure activities in a traditional vacation setting such as the mountains or the beach.

The Monument provides numerous opportunities and settings for the visitor to learn about and experience the area's unique natural features. Existing recreation facilities consist of mainly unpaved roads, a small visitor center, interpretive overlooks, and campgrounds with limited amenities. These support facilities are adequate for current use levels, and are in keeping with the management vision to keep the area rustic and natural. However, recreational and educational uses by special groups, academia, and the general public are expected to increase due to the rising awareness of the value of the Monument. Interpretive opportunities focus on the objects of the monument proclamation which include world-class biological, cultural, and geologic resources. Protection and interpretation of these features would be a primary focus of future recreational development. In all alternatives, proposed improvements would retain a low level of development with "rustic" character. For the purposes of this section, "rustic" means small in scale, non-intrusive on the landscape, and providing primarily for visitor appreciation, safety, and protection of resources vs. comfort and convenience. The overall recreation management focus would be to provide settings and management that allows visitors to explore and experience the area on its own terms.

As part of the land use planning process, BLM lands having distinct primary recreation-tourism markets are identified. These areas are identified as special recreation management areas (SRMAs). Each SRMA has a distinct, primary recreation-tourism market as well as a corresponding and distinguishing recreation

management strategy. The CPNM represents a distinct destination with a specific and singular management niche. Therefore, the entire area would be identified as one SRMA in this RMP.

2.16.1 Use of Recreation Management Zones

Discrete recreation management zone boundaries are defined through the RMP for each action alternative. Each zone has four defining characteristics:

- To serve a different recreation niche within the primary recreation market;
- To produce a different set of recreation opportunities and facilitates the attainment of different experience and benefit outcomes (to individuals, households and communities, economies, and the environment);
- To provide distinctive recreation settings; and
- To provide distinct management actions to meet the targeted primary recreation opportunities.

Under the action alternatives, management decisions are organized by recreation management zones. Zones were not identified in past planning efforts for the Monument, so they are not used in the no-action alternative. The zones describe the physical and social setting components the visitor will encounter when visiting these specific areas, as well as the level of management and improvements that will be provided. Each zone would highlight a different recreational experience. In each alternative, all lands within the CPNM are designated with a recreation management zone. The acreage and boundaries of these areas change by alternative. These zones are titled as the Primitive, Backcountry, and Frontcountry zones.

Note that recreation management zones also provide a framework for the Wilderness, Visual Resources, and Travel Management sections of this document, and are referenced in these respective sections.

Under the action alternatives, management decisions are organized by recreation management zones. Zones were not identified in past planning efforts for the Monument, so they are not used in the no action alternative. The zones describe the physical and social setting components the visitor will encounter when visiting these specific areas, as well as the level of management and improvements that will be provided. Each zone would highlight a different recreational experience. In each alternative, all lands within the CPNM are designated with a recreation management zone. The acreage and boundaries of these areas change by alternative. These zones are titled as the Primitive, Backcountry, and Frontcountry zones. See Table 2.16-1.

Note that recreation management zones also provide a framework for the Wilderness, Visual Resources, and Travel Management sections of this document, and are referenced in these respective sections.

2.16.1.1 Primitive Zone Description

The Primitive zone is essentially roadless, and a primary management goal would be focused on recognizing and managing a unique and primitive undeveloped area for its “wilderness character”. This environmental setting would offer visitors the greatest opportunity for solitude, challenge, and self-sufficiency. Management activities here would be to maintain and restore the area to a natural functioning ecosystem with minimal evidence of human intrusions. Within this zone, the BLM would achieve important resource and visitor management objectives using hand tools, except in emergency situations or where motorized equipment is determined to be the minimum necessary tool. Appropriate public use would include non-motorized/non-mechanized activities with few recreational facilities, such as trails and signing for resource protection or visitor safety.

Table 2.16-1. Recreation Management Zones

Frountcountry	Backcountry	Primitive
Management Objective		
Manage this zone to provide pportunities for visitors to engage in the targeted activities in a short time frame; for primarily day-use and to gain knowledge of surrounding cultural and natural resources of the CPNM though interpretation and self-discovery. Motorized access will be limited to designated roads to protect the sensitive natural and cultural resources contained in this zone. Minimal developments and considerable protection measures will be set to retain and enhance the objects of the proclamation.	Manage to provide opportunities for visitors to engage in a remote isolated recreation experience. Manage this zone to provide opportunities for visitors who use the area to engage in sustainable, access for primitive day-use and camping opportunities to gain appreciation of the natural setting of the Carrizo Plain National Monument self-discovery, and OHV touring on designated routes.	Manage this zone to provide opportunities for visitors to find solitude, engage in unconfined recreation, and experience personal challenge and reflection. Preserve the primitive opportunities and wilderness characteristics in this zone.
Recreation Opportunity		
• Camping • Cultural/historical sightseeing • Wildlife viewing • Picnicking • Auto touring • Wilderness access • Photography • Hiking • Equestrian activities • Biking	• Dispersed vehicle camping • Hiking • OHV touring • Cultural/historical sightseeing • Picnicking • 4-wheel-drive touring • Wilderness access • Photography • Wildlife viewing • Equestrian activities • Biking • Hunting	• Hiking • Backpacking • Equestrian activities • Primitive dispersed camping • Wildlife watching • Hunting
Experience		
• Enjoying easy access to natural landscapes • Enjoying unguided and guided exploration • Savoring the total sensory experience of a natural landscape	• Developing skills and abilities • Testing personal endurance • Savoring the total sensory experience of a natural landscape • Escaping everyday responsibilities for awhile	• Gaining a greater sense of self-confidence • Testing personal endurance • Savoring the total sensory experience (sight sound, and smell) of a natural landscape • Enjoying risk-taking adventure • Feeling good about solitude, being isolated and independent • Enjoying an escape from crowds of people • Nurturing personal spiritual values and growth

Frountcountry	Backcountry	Primitive
Benefits		
Personal: • Sense of wellness • Improved physical fitness and health maintenance • Greater respect for shared cultural heritage • Closer relationship with the natural world • Enhanced sense of personal freedom • Improved capacity for outdoor physical activity **Community/Social:** • Feeling that this community is a special place to live • Greater community involvement in recreation and other land use decisions • Greater awareness of and appreciation for our cultural heritage. • More well-rounded childhood development **Environmental:** • Greater community ownership and stewardship of recreation, and natural resources • Greater retention of distinctive natural landscape features • Reduced negative human impacts • Increase awareness and protection of natural landscapes • Reduced looting of historic and prehistoric sites • Sustainability of community's cultural heritage • Greater protection of wildlife, and plant habitat from development, and public land use impacts • Conservation of entire sustainable ecosystems • Reduced wildlife disturbance from recreation facility development **Economic:** • Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits • Increased local tourism revenue	**Personal:** • Greater self-reliance • Improved skills for outdoor enjoyment • Closer relationship with the natural world • Greater freedom from urban living **Community/Social:** • Feeling that this community is a special place to live • Greater community involvement in recreation and other land use decisions • More well-rounded childhood development **Environmental:** • Greater community ownership and stewardship of recreation, and natural resources • Greater retention of distinctive natural landscape features • Reduced negative human impacts • Increase awareness and protection of natural landscapes • Reduced looting of historic and prehistoric sites • Sustainability of community's cultural heritage • Greater protection of wildlife, and plant habitat from development, and public land use impacts • Conservation of entire sustainable ecosystems • Reduced wildlife disturbance from recreation facility development **Economic:** • Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits • Increased local tourism revenue	**Personal:** • Greater self-reliance • A closer relationship with the natural world • Improved skills for outdoor enjoyment • Enhanced sense of personal freedom • Greater freedom from urban living **Community/Social:** • Feeling that this community is a special place to live • Greater community involvement in recreation and other land use decisions • More well-rounded childhood development **Environmental:** • Greater community ownership and stewardship of recreation, and natural resources • Greater retention of distinctive natural landscape features • Reduced negative human impacts • Increase awareness and protection of natural landscapes • Reduced looting of historic and prehistoric sites • Sustainability of community's cultural heritage • Greater protection of wildlife, and plant habitat from development, and public land use impacts • Conservation of entire sustainable ecosystems • Reduced wildlife disturbance from recreation facility development **Economic:** • Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits • Increased local tourism revenue

Frountcountry	Backcountry	Primitive
Proposed Management		
• Opportunities for visitors to experience a wildland setting in close proximity to their home for a wide of range environmentally sound, motorized and non-motorized, recreational activities • Greater potential for interpretive developments and signing.	• Minimal improvements to achieve targeted benefits, realize potential for solitude, unconfined primitive activities; • Increased effort to manage unauthorized motor vehicle use. • Increased effort to promote authorized motorizes and mechanized uses	• BLM will manage this zone to protect wilderness characteristics and provide the targeted benefits and outcomes.

2.16.1.2 Backcountry Zone Description

The Backcountry zone would represent a broad mix of uses and management. Primary recreational activities in the Backcountry would include hunting, and motorized and non-motorized exploration. Dispersed camping would also be allowed under some management alternatives. Roads and trails with natural surfaces would be the primary recreational facilities provided. Despite the presence of roads in this zone, many parts of the Backcountry zone would remain remote and difficult to access. The Backcountry zone would present ample opportunities to explore the monument "off the beaten path."

2.16.1.3 Frontcountry Zone Description

Most of the CPNM's existing developed recreation sites are included within this zone and additional visitor facilities would be focused here. Primary management goals would focus on providing visitor access to developed recreation and interpretive sites. Appropriate facilities within this zone could include interpretive overlooks, developed campgrounds, a visitor/educational center, and trailheads. The Frontcountry zone would offer readily available services to casual visitors, where they can learn about the primitive character and significant resource values of the Monument without venturing into more remote locations that typify the other zones and require a higher level of preparation.

2.16.2 Goals, Objectives, and Management Actions Common to All Action Alternatives

2.16.2.1 Goals

- Provide recreation opportunities and interpretative programs that enhance the public's appreciation of the objects of the Monument Proclamation and other Monument resources.
- Manage Monument lands to provide quality recreation while protecting natural and cultural resources, promoting safety and minimizing conflicts between users and wildlife.
- Identify specific management zones that will each offer distinct types of recreation settings and opportunities to monument visitors.

2.16.2.2 Zone-Specific Setting Objectives

The zone objectives do not vary by alternative. Instead, the acreage allocated to each zone changes in each alternative. (For descriptions of each zone, refer to Section 2.16.1, Use of Recreation Management Zones).

Primitive Zone Management Objectives

Physical Setting

Maintain a natural landscape, with few developments, where the forces of nature predominate and the sights and sounds of human influence are minimized. Management would be kept at a minimum to provide for visitor safety or resource protection. Visitor access would be cross-country or on non-mechanized trails.

Social Setting

Provide opportunities and benefits that allow freedom of access, solitude, and primitive non-mechanized recreation.

Visitors would be expected to practice a level of personal responsibility and self-sufficiency that is compatible with a self-directed, primitive experience.

Managerial Setting

The majority of management actions would occur outside of the Primitive zone so that visitors can experience freedom to choose travel and camping locations once they enter the zone. Management actions would prepare visitors to enter and use the Primitive zone safely and with minimal impacts to resources and other visitors. Management presence on-site would be subtle, in the form of rustic signs and non-mechanized trails, and with relatively low levels of direct visitor contact. Motorized roads within this zone would be either converted to trails or closed to public use.

Backcountry Zone Management Objectives

Physical Setting

Maintain the existing, predominantly natural landscape with visitor access provided through a network of unpaved roads and trails. Provide rustic day-use facilities, such as trailheads and interpretive or informational signing and associated parking, to orient the visitor with directional, interpretive, and regulatory information necessary to enhance their recreational experiences and protect important natural and cultural resources in the area. (Dispersed camping would vary by alternative).

Social Setting

Provide opportunities for exploration of remote areas and allow for activities (mechanized and motorized on-road travel) not available within the Primitive zone. The Backcountry zone would also provide visitors with access points to the Primitive zone.

Visitors would be expected to practice a level of personal responsibility in following management guidelines and regulations to protect the natural and cultural resources in the area and the recreational facilities, and to respect the rights of other users.

Managerial Setting

Management activities within the Backcountry zone could occur through on-site informational and interpretive signing and visitor contacts as well as off-site through information and contacts provided within the Frontcountry zone. This would provide visitors with the opportunity to experience a mixture of

personal freedom as well as feel a sense of security. Information would focus on informing visitors of recreational opportunities, safety concerns, and regulations designed to protect the natural and cultural resources in the area. Management presence on-site would continue to be more apparent than in the Primitive zone, with low to moderate levels of direct visitor contact.

Frontcountry Zone Management Objectives

Physical Setting

The Frontcountry zone would have the majority of facilities on the CPNM. This zone would include the Goodwin Education Center, all of the major interpretive sites, both campgrounds, all administrative sites, and all or parts of Soda Lake and Simmler and Elkhorn roads, varying by alternative. This area would include the greatest concentration of interpretation, signage, and kiosks and represents the highest level of development relative to the other zones.

Social Setting

The Frontcountry zone would give the visitor the opportunity to learn about the values and features of the CPNM in a relatively short time frame while having access to the greatest level of safety and comfort. The majority of the visitors would access the Monument and spend time in the Frontcountry zone, so encounters with other visitors would be anticipated.

Managerial Setting

Management presence on-site would be more apparent than in both the primitive and backcountry zones with higher levels of direct visitor contacts, including some opportunities for guided tours and other interpretive programs.

2.16.2.3 Monument-Wide Objectives and Management Actions

Objective: Provide limited visitor facilities within the Monument as necessary for visitor access to provide interpretive opportunities, and for the protection of natural and cultural resources.

Management Actions

- Conduct an assessment of recreation sites and programs to determine whether or not they meet the criteria for charging standard or extended amenity fees under the *Federal Lands Recreation Enhancement Act*. If a site or program is determined to meet the criteria, the appropriate process for establishing fees will be followed, which will include opportunities for public involvement.
- Assess and improve existing overlooks and interpretive facilities and programs as needed and develop additional facilities in keeping with the management goals of each zone.
- Develop a comprehensive sign plan to include all directional, informational, educational and interpretive signage. Ensure that signing, maps, brochures, and web-based information provide complementary and consistent information and are part of a complete communication program.
- Develop and maintain public potable water sources where feasible at developed recreation facilities such as campgrounds and the Goodwin Education Center.
- Provide adequate and timely maintenance of all facilities and signs.

Objective: Allow recreation activities and group uses that are compatible with cultural and biological resource objectives and provide opportunities to appreciate the natural and cultural resources.

Management Actions

- Develop a comprehensive communication program to provide information on monument recreation opportunities:
  - Incorporate a variety of media including the internet, printed materials, and on-site signing and kiosks.
  - Incorporate visitor safety and user ethics messages.
  - Incorporate timely seasonal information such as road conditions, hunting information, and wildflower viewing updates.
  - Work with regional visitor bureaus, chambers of commerce, and other gateway community outreach groups to incorporate accurate Monument information into their programs (including safety and responsible use messages).
- Develop a driving/riding interpretive tour through the Monument.
- Establish a monitoring program to determine impacts from recreational use on natural and cultural resources and on social settings. If monitoring indicates direct impacts to resources such as cultural sites, paleontological sites, or special status species, take immediate corrective action, such as establishing permits, seasonal restrictions, or area closures. For less severe impacts, take adaptive corrective actions beginning with the least restrictive approach:
  - Provide visitor use and ethics information.
  - Require permits or establish seasonal restrictions.
  - Close areas.
- Permit low-impact, commercial, and organized group recreation activities and events that are compatible with cultural and biological resource objectives and are directly tied to enjoyment and appreciation of Monument resources. (Allowance of competitive events would vary by alternative and zone).
- Establish supplementary rules and regulations where required (as specified in this document) and/or carry forward existing rules and regulations to protect resources and provide for visitor safety. (See Appendix I, Supplemental Rules for Public Use.)
- Develop an education and outreach program that targets motorized recreational visitors to increase resource protection and responsible use, and reduce the incidence of illegal off-road travel.

Objective: Provide universal access to new facilities and retrofit existing facilities to comply with the *Americans with Disabilities Act* and the recreation program objectives for each management zone. Retrofitting will also incorporate other applicable requirements such as those for historic structures.

Management Action

- Assess all recreation, interpretive, and other public facilities and develop a retrofitting program so that they meet accessibility standards.

Objective: Seek out new and maintain existing partnerships with communities and user groups to further the mission of the Monument and complementary community goals.

Management Actions

- Develop and maintain partnerships with organized user groups such as mountain bike groups, hiking societies, and hunting clubs to promote responsible use, volunteerism, and self-policing, and to educate users about the Monument's cultural and natural resources.
- Develop and maintain partnerships with gateway communities to provide visitor services and/or facilities outside the Monument.

Objective: New types of recreation uses may be allowed if they are compatible with the goals and objectives of this plan. Such uses would be evaluated on a case by case basis to assess potential use conflicts, resource impacts, and safety concerns.

Management Action:

- Above-ground cache activities such as geocaching, earthcaching, and letter boxing may be allowed in non-sensitive areas if the proposed site is consistent with Monument objectives, does not disturb sensitive resources, and BLM provides written authorization for the specific cache site. Unauthorized caches would be removed. Cache activities would not be authorized at sites that are sensitive to Native Americans, such as Painted Rock.

Objective: Target marketing of Monument recreation opportunities to visitors seeking experiences that are compatible with area resource protection objectives and the rustic setting.

Management Action

- Develop a targeted marketing plan to ensure that visitor information and outreach messages delivered by BLM, gateway communities, and other media are compatible with the Monument's recreation niche and the protection of Monument objectives.

Objective: Provide a comprehensive natural and cultural resource interpretive program that tells the story of the Monument and its significance (note: This program is discussed in more detail in the Cultural Resources section).

Management Action

- Develop a comprehensive natural and cultural interpretive plan for the Monument that identifies core themes, appropriate media, key audiences, priority facility needs (including potential additional visitor center space), and other components.

2.16.3 Alternative 1

2.16.3.1 Monument-Wide Objectives, Management Actions, and Allowable Uses

Objective: Protect Monument resources by allowing camping with motorized vehicles only in developed campgrounds.

Allowable Use

- Allow camping with vehicles in developed campgrounds only. Dispersed camping would not be permitted. Overnight parking would be permitted in designated locations for backpacking (where visitors travel more than ½ mile from their vehicle to camp).

2.16.3.2 Primitive Zone

Objective: Manage the existing 17,984-acre Caliente Mountain WSA plus 65,218 acres as Primitive. (See Map 2-2, Recreation Management Zones and Route Designations, Alternative 1.)

Management Actions

Facilities

- Provide only facilities necessary for resource protection and visitor safety. Typical facilities may include trail signing, trails, and horse hitching rails.

Interpretation and Education

- Interpretive and directional information for trails other opportunities would not be provided within the zone. Off-site information and interpretation would be provided before visitors enter the area.
- Provide minimal signing within the interior of this zone only to provide for resource protection or visitor safety.

Allowable Uses

- A variety of non-motorized and non-mechanized recreational activities such as hiking, equestrian use, camping, wildlife viewing, nature photography, and other activities consistent with the goal of providing a primitive experience would be allowed.

2.16.3.3 Backcountry Zone

Objective: Manage 158,080 acres as backcountry. (See Map 2-2.)

Management Actions

Facilities

- Minimal facilities will be developed in the backcountry zone. Facilities would be limited to such items as small interpretive sites and trailheads.

Interpretation and Education

- Provide rustic informational signage on roads, trails, at trailheads, and at other facilities.
- Minor overlooks would be limited to pull-outs or small areas with no amenities. Most interpretive information would be obtained by the visitor in facilities located in the Frontcountry zone.

Allowable Uses

A variety of non-motorized and motorized recreational activities such as driving for pleasure, hiking, equestrian use, mountain biking, hunting, nature study, wildlife and wildflower viewing, nature photography, and other uses compatible with goals for the Backcountry zone would be allowed.

2.16.3.4 Frontcountry Zone

Objective: Manage 11,585 acres as Frontcountry. (See Map 2-2.)

Management Actions

Facilities

- Provide recreational and interpretive facilities with amenities that provide for visitor orientation, safety, comfort and resource protection at overlooks, trailheads, and at interpretive kiosks. When possible, utilize construction standards that portray a rustic character and mimic the existing design motif of historic ranch/farm structures.
- Provide trailheads, parking areas, campgrounds, the Goodwin Education Center, roads, and other facilities that support the recreational and interpretation goals of the Monument.
- Administrative sites would also be included within this zone.

Interpretation and Education

- Improve and expand existing interpretive programs at existing kiosks, the Goodwin Education Center, Soda Lake Boardwalk, Soda Lake Overlook, Wallace Creek, El Saucito, and other sites. Additional interpretive areas along primary access roads may be developed.
- Provide guided tours of El Saucito Ranch to offer the visitor an opportunity to appreciate the range of cultural history in the CPNM (See also Cultural Resources Section).
- Expand the Goodwin Educational/Visitor's Center to provide additional visitor capacity and to accommodate additional educational and interpretive programming.
- Provide directional and informational signage along roads and at recreational/interpretive facilities to help minimize the impact on resources and to provide for visitor safety.

Allowable Uses

- A wide variety of motorized and non-motorized uses such as driving for pleasure, mountain biking, equestrian use, wildflower viewing, camping at developed campgrounds, hiking, visiting cultural sites and other interpretive sites, and picnicking would be allowed.
- A 1,204-acre area from Painted Rock to Selby Rocks will be closed to horses, livestock, dogs, and the discharge of firearms. The closed area would not include Selby Road or Caliente Mountain Road. (See Map 2-2.)
- Painted Rock would be closed to public access.

2.16.4 Alternative 2 (Preferred Alternative)

2.16.4.1 All Zones

Objective: Reduce the risk of death or injury to the kit fox and other listed animal species from accidental shootings by eliminating varmint hunting.

Recommended Action (outside of BLM jurisdiction): Work with CDFG to eliminate varmint hunting on the Monument.

Objective: Continue to provide a wide variety of distinct recreation opportunities through zoning. Emphasize vast open spaces, opportunities for solitude, and provide for compatible dispersed recreation activities.

Allowable Uses: Dispersed camping in designated areas would be allowed and monitored for impacts. If monitoring indicates direct impacts to resources such as cultural sites, paleontological sites, or special status species, corrective actions such as site stabilization or improvement, permits, seasonal restrictions, or area closure may be taken. For less severe impacts, corrective actions would be taken, beginning with the least restrictive approach:

- Provide visitor use and ethics information
- Develop and encourage use of defined sites within dispersed camping areas. For example, provide amenities for site protection, such as signage, fire rings and lantern holders, soil stabilization, etc.
- Require permits or establish seasonal restrictions.
- Close and rehabilitate areas.

2.16.4.2 Primitive Zone

Objective: Manage the existing 17,984-acre Caliente Mountain WSA plus 36,480 additional acres as Primitive. (See Map 2-3.)

Management Actions

Facilities

- Facilities determined necessary for resource protection and visitor safety may be provided. Typical facilities within the zone may include limited trail signing, trails, and horse hitching rails.

Interpretation and Education

- Interpretive and directional information for overlooks, trails, cultural sites, and other features would not be provided within this zone.
- Provide minimal signing within the interior of this zone only when needed for resource protection or visitor safety.

Allowable Uses

A variety of non-motorized and non-mechanized recreational activities such as hiking, equestrian use, camping, wildlife viewing, nature photography, and other activities consistent with the goal of providing a primitive experience would be allowed.

2.16.4.3 Backcountry Zone

Objective: Manage 186,819 acres as backcountry. (See Map 2-3.)

Management Actions

Facilities

- Provide amenities at designated dispersed camping areas for resource protection and to encourage use in areas that are already impacted. Facilities would retain a rustic character.

Interpretation and Education

- Provide rustic informational signage on roads, trails, at trailheads, and at other facilities.
- Minor overlooks would be limited to pull-outs or small areas with few amenities. Most interpretive information will be obtained by the visitor in facilities located in the Frontcountry zone.

Allowable Uses

- A variety of non-motorized and motorized recreational activities such as vehicle camping, driving for pleasure, hiking, equestrian use, mountain biking, hunting, nature study, wildlife and wildflower viewing, nature photography, and other uses compatible with goals for the Backcountry zone would be allowed.
- Low-impact, non-motorized competitive activities and events that are consistent with the Monument Proclamation and cultural and biological objectives may be authorized. Require support facilities such as parking and concessions to be located at existing or approved BLM sites, or outside of the Monument boundary. Competitive events shall not include the release of nonnative or captive-held native species.

2.16.4.4 Frontcountry Zone

Objective: Manage 15,384 acres as Frontcountry. (See Map 2-3.)

Management Actions

Facilities

- Provide recreational and interpretive facilities with amenities that provide for visitor orientation, safety, comfort, and resource protection at overlooks, trailheads, and at interpretive kiosks. When possible, utilize construction standards that portray a rustic character. .
- Provide trailheads, parking areas, campgrounds, the Goodwin Education Center, roads, and other facilities that support the recreational and interpretation goals of the Monument.

Interpretation and Education

- Improve and expand existing interpretive programs at existing kiosks, the Goodwin Education Center, Soda Lake Boardwalk, Soda Lake Overlook, Wallace Creek, Painted Rock, El Saucito, and other sites. Additional interpretive areas along primary access roads may be developed.
- Provide guided tours of Painted Rock and El Saucito Ranch to offer the visitor an opportunity to appreciate the range of cultural history in the CPNM.
- Expand the Goodwin Educational/Visitor's Center to provide additional visitor capacity and to accommodate additional educational and interpretive programming.
- Provide directional and informational signage along roads and at recreational/interpretive facilities to help minimize the impact on resources and to provide for visitor safety.

Allowable Uses

- Allow a wide variety of motorized and non-motorized uses such as driving for pleasure, mountain biking, equestrian use, wildflower viewing, camping at developed campgrounds, hiking, visiting cultural sites and other interpretive sites, and picnicking.
- Low-impact, non-motorized competitive activities and events that are consistent with the Monument Proclamation and cultural and biological objectives, may be authorized. Require support facilities such as parking and concessions to be located at existing or approved BLM sites or outside of the Monument boundary. Competitive events shall not include the release of nonnative or captive-held native species.
- A 1,204-acre area from Painted Rock to Selby Rocks will be closed to the following: horses, livestock, dogs, and the discharge of firearms. The closed area would not include Selby Road or Caliente Mountain Road. (See Map 2-1, Painted Rock Exclusion Zone.)
- An access permit would be required for all self-guided tours to Painted Rock.
- Painted Rock would be closed from dusk to dawn.
- Prohibit campfires within the Painted Rock Exclusion Zone (Map 2-1) while still allowing for approved Native American ceremonial use of fire.

2.16.5 Alternative 3

2.16.5.1 All Zones

Objective: Continue to provide a wide variety of distinct recreation opportunities through zoning. Emphasize visitor orientation and recreation in an expanded frontcountry zone, provide for compatible dispersed recreation activities, and continue to provide opportunities for solitude within the Wilderness Study Area.

Allowable Use

Dispersed camping in designated areas would be allowed and monitored for impacts. If monitoring indicates direct impacts to resources such as cultural sites, paleontological sites, or special status species, corrective actions such as site stabilization or improvement, permits, seasonal restrictions, or area closure, may be taken. For less severe impacts, corrective actions would be taken, beginning with the least restrictive approach:

- Provide visitor use and ethics information.
- Develop and encourage use of defined sites within dispersed camping areas. For example, provide amenities for site protection, such as signage, fire rings and lantern holders, soil stabilization, etc.
- Require permits or establish seasonal restrictions.
- Close and rehabilitate areas.

2.16.5.2 Primitive Zone

Objective: Manage the existing 17,984-acre Caliente Mountain WSA as Primitive. (See Map 2-4, Recreation Management Zones and Route Designations, Alternative 3.)

Management Actions

Facilities

- Facilities determined necessary for resource protection and visitor safety may be provided. Typical facilities within the zone may include limited trail signing, trails, and horse hitching rails.

Interpretation and Education

- Interpretive and directional information for overlooks, trails, cultural sites, and other features would not be provided. Information would be provided outside of the zone through sources such as brochures, the internet, and audio tours.
- Provide minimal signing within the interior of the Primitive zone only when needed for resource protection or visitor safety.

Allowable Uses

- A variety of non-motorized and non-mechanized recreational activities such as hiking, equestrian use, camping, wildlife viewing, nature photography, and other activities consistent with the goal of providing a primitive experience would be allowed.

2.16.5.3 Backcountry Zone

Objective: Manage 223,299 acres (see Map 2-4) as backcountry.

Management Actions

Facilities

- Provide amenities at designated dispersed camping areas for resource protection and to encourage use in areas that are already impacted. Facilities should retain a rustic character.

Interpretation and Education

- Provide rustic informational signage on roads, trails, at trailheads, and at other facilities.
- Minor overlooks would be limited to pull-outs or small areas with few amenities. Most interpretive information will be obtained by the visitor in facilities located in the Frontcountry zone.

Allowable Uses

- A variety of non-motorized and motorized recreational activities such as vehicle camping, driving for pleasure, hiking, equestrian use, mountain biking, hunting, nature study, wildlife and wildflower viewing, nature photography, and other uses compatible with goals for the backcountry Zone would be allowed.
- Low-impact, non-motorized competitive activities and events that are consistent with the Monument Proclamation and cultural and biological objectives may be authorized. Require support facilities such as parking and concessions to be located at existing or approved BLM sites, or outside of the Monument boundary. Competitive events shall not include the release of nonnative or captive-held native species.

2.16.5.4 Frontcountry Zone

Objective: Manage 24,944 acres (see Map 2-4) as frontcountry.

Management Actions

Facilities

- Provide recreational and interpretive facilities with amenities that provide for visitor orientation, safety, comfort, and resource protection at overlooks, trailheads, and at interpretive kiosks. When possible, utilize construction standards that portray a rustic character.
- Provide trailheads, parking areas, campgrounds, the Goodwin Education Center, roads, and other facilities that support the recreational and interpretation goals of the Monument.

Interpretation and Education

- Provide guided tours of Painted Rock and El Saucito Ranch to offer the visitor an opportunity to appreciate the range of cultural history in the CPNM.
- Improve and expand existing interpretive programs at existing kiosks, the Goodwin Education Center, Soda Lake Boardwalk, Soda Lake Overlook, Wallace Creek, Painted Rock, El Saucito, and other sites. Additional interpretive areas along primary access roads may be developed.
- Expand the Goodwin Educational/Visitor's Center to provide additional visitor capacity and to accommodate additional educational and interpretive programming.
- Provide directional and informational signage along roads and at recreational/interpretive facilities to help minimize the impact on the resources and to provide for visitor safety.

Allowable Uses

- A wide variety of motorized and non-motorized uses such as driving for pleasure, mountain biking, equestrian use, wildflower viewing, camping at developed campgrounds, hiking, visiting cultural sites and other interpretive sites, and picnicking would be allowed.
- Low-impact, non-motorized competitive activities and events that are consistent with the Monument Proclamation and cultural and biological objectives, may be authorized. Require support facilities such as parking and concessions to be located at existing or approved BLM sites, or outside of the Monument boundary. Competitive events shall not include the release of nonnative or captive-held native species.
- A 1,204-acre area from Painted Rock to Selby Rocks would be closed to horses, livestock, dogs, and the discharge of firearms. The closed area does not include Selby Road or Caliente Mountain Road. (See Map 2-1, Painted Rock Exclusion Zone.)
- An access permit would be required for all self-guided tours to Painted Rock.
- Painted Rock will be closed from dusk to dawn.

2.16.6 No Action Alternative

2.16.6.1 Facilities

Goal: Provide recreational facilities including trails and interpretive exhibits.

Objective: Develop facilities that would enhance public enjoyment and educational experiences while minimizing impact on resources and existing uses.

Management Actions

- Design facilities to have the least adverse impact possible on resources and existing uses.
- Monitor impacts associated with visitor use and facility development.
- Provide facilities at the Painted Rock Parking Area and interpretation on a portion of the Painted Rock Trail.
- Maintain a parking area along Elkhorn Road near Wallace Creek.
- Maintain the Soda Lake Boardwalk, near the overlook, to interpret the different plant communities.
- Remove the plaques from the top of the hill at the Soda Lake Overlook and relocate them at a lower elevation to restore the visual integrity of the site.
- Develop a roadside pullout with a kiosk at the southern end of Soda Lake Road.
- Use traffic counters, trail registers, and visitor questionnaires to monitor visitor use and requirements.

2.16.6.2 Camping

Objective: Provide designated camping areas and related facilities compatible with the goals of the CPNM.

Management Actions

- Designated camping areas identified in this plan will be monitored for impacts and visitor use surveys will be made to determine present and future demands.
- Limit overnight camping to 14 days in any 30-day period and no more than 28 days in one year, and to designated camping areas, except as specified in writing by the CPNM Manager.
- Maintain and improve Selby and KCL campgrounds.
- Portions of the Temblor and Caliente Mountains will be designated camping areas allowing for car, tent, backpack, or horse camping. Low impact ("primitive") and horse camping will be allowed along the Caliente ridge and within the Caliente Mountain WSA. No facilities will be located within this designated camping area.
- If additional camping areas are required, evaluations of potential sites will be based on, but not limited to, potential for deleterious environmental impacts, accessibility to all-weather roads, size of the area, appropriate location for visitor interest and use, availability of water, viewshed and VRM impacts, and security.

2.16.6.3 Hunting

Objectives: Provide opportunities for hunting consistent with the mission. Manage hunting and shooting in a manner compatible with the goals of the Monument Proclamation.

Management Actions

- All sections of the California Fish and Game Code and the California Code of Regulations Title 14 are in effect and will be enforced by any law enforcement officer.
- Monitor hunting to determine if conflicts exist with sensitive resources. The finding will determine if changes in hunting areas are warranted.
- Develop a hunter information guide with maps showing open and closed hunting areas, the mission of the CPNM, and use restrictions. Emphasis should be placed on special concerns for cultural resources and the California condor and its recovery.
- Direct visitors to established facilities outside the CPNM for target shooting.
- Close the area from Painted Rock to the Goodwin Education Center to the discharge of firearms because of the high visitor use in this area. (See details in Appendix I, Supplemental Rules for Public Use.)
- Establish a quarter-mile radius closure for the discharge of firearms around the Selby and KCL campgrounds, Goodwin Education Center, Washburn and MU ranch headquarters, Soda Lake Overlook complex, and the Wallace Creek interpretive site.

2.16.6.4 Other Recreation

Objectives: Permit other types of recreation if compatible with sensitive resources. Allow Special Recreation Use Permits compatible with the goals and objectives of this plan.

Management Actions

- A Special Recreation Use Permit or Letter of Authorization will be required for activities that are consistent with the management plan for organized groups of 20 or more people. Permits will be administered by BLM in coordination with the managing partners.
- Other recreational activities not identified in this plan will be denied if they are found to be incompatible with the sensitive resources or the Monument Proclamation. Examples include certain types of competitive and large-group activities, such as motorcycle runs and organized equestrian events.
- If a proposed event detracts from the natural, cultural, or esthetic values of the CPNM or poses a risk to those resources that could be avoided by simply moving the event outside of the CPNM, then the application will be denied. Recreational activities that focus on the special resources of the CPNM, benefit the CPNM, or provide public education opportunities with no potential for causing negative impacts to those resources may be approved.

2.16.6.5 Interpretation

Goal: Convey an understanding and appreciation of the unique resources so that visitors may enjoy and protect them.

Objective: Increase the understanding and awareness of the resource values of the CPNM and foster an interest in their protection.

Management Actions

- Use the existing Interpretive Prospectus as an outline for CPNM interpretive services.

- Continue developing outreach programs with local schools, universities, and special interest groups.

Objective: Operate the Guy L. Goodwin Education Center to enhance the educational and recreational enjoyment of visitors.

Management Actions

- Develop an operational strategy for the Goodwin Education Center including long-term goals, funding, and staffing.
- Establish the Goodwin Education Center as the primary location for visitor information and educational materials.
- Establish a docent recruitment and training program to provide interpretive services and assist with public outreach. This will provide opportunities for public involvement.

2.17 Administrative Facilities

In general, the CPNM has adequate administrative facilities to support the management programs envisioned under the RMP. However, over the life of the plan, there may be a need to develop additional facilities and there will be a need to upgrade existing facilities to accommodate the administration of the Monument.

2.17.1 Goal, Objectives, and Management Actions Common to All Action Alternatives

2.17.1.1 Goal

Provide facilities that are consistent with the mission of the Monument and support the management goals identified in this RMP.

Objective: Provide administrative and maintenance facilities to support the management of the Monument.

Management Actions

- Continue to maintain existing administrative sites on the Monument. This includes the Washburn Ranch and the MU Ranch.
- Determine the need to accommodate future employees, seasonal workforce, and researchers at the Washburn Ranch and increase housing capabilities as needed.
- Provide location(s) for researchers to link to the internet and other communication mediums for data transmission and other support needs.
- Maintain the facilities at the MU Ranch for employees and research housing.
- Expand the Visitor Center to better accommodate employees and enhance educational opportunities for the public.

Objective: Use “green” building techniques that minimize use of natural resources and energy and minimize the need for commercial power and utility corridors related to Monument administrative sites.

Management Actions

- Work with Pacific Gas & Electric and CDFG to install solar power at the Visitor Center and the Painted Rock Ranch to eliminate the need for the existing transmission line across the Monument.
- Incorporate green design elements and alternative sources of power when developing or retrofitting any administrative sites.

2.17.2 No Action Alternative

No explicit objectives or actions are included in existing management plans regarding administrative facilities.

2.18 Travel Management

The CPNM has a long history of mechanized farming that has resulted in a large network of travelways throughout the Monument. Some of these travelways are used for visitor enjoyment of the area and for resource management activities. However, many other roads are no longer necessary, poorly sited, redundant, or causing impact on the land. The intent of the travel management program is to provide a travel network that will protect the Monument's natural and cultural resources, allow for administrative access for management and restoration activities, and provide opportunities for visitors to experience the uniqueness of the CPNM. The travel management program also includes limitations on use to ensure safety or to protect resources from degradation due to excessive erosion, dust, wildlife disturbance, and other impacts.

All public lands in the planning area are designated through a two-level process in this RMP. The first level is the Area Designation. Under the Area Designation, all BLM lands in the planning area are designated as either an open area, a limited area, or a closed area regarding vehicle travel under the BLM OHV regulations (at 43 CFR 8342). Under the Monument Proclamation, no off-road motorized or mechanized travel is permitted, so the area designations are either limited area or closed area in the RMP alternatives. A second level of designation applies to the roads themselves. Roads are designated as open roads, limited roads, or closed roads within this RMP. The full definitions are described under Travel Management Terms in the next section. Note that BLM travel management designations only apply to BLM-managed lands, roads and trails, and not to county roads such as Soda Lake or Elkhorn roads. Also:

- Public vehicle use in the planning area is limited to routes designated in this plan. Any areas and routes on public lands within the planning area that are not identified explicitly in this document and associated maps are closed to vehicle use.
- Short spur routes designed for passenger car access to and within campgrounds, trailhead parking areas, and other BLM recreation sites, although they are not identified explicitly, are open to vehicles unless signed, gated, or otherwise closed.

2.18.1 Travel Management Terms

Open Area: Designated areas where motorized vehicles may be operated, subject to operating regulations and vehicle standards set forth in BLM Manuals 8341 and 8343; or an area where all types of vehicles are permitted at all times, subject to the standards in BLM Manuals 8341 and 8343. There are no open areas designated in the planning area or proposed under this RMP, since under the Monument Proclamation, no off-road motorized or mechanized travel is permitted.

Limited Area: Designated areas where the use of off-road vehicles is subject to restrictions, such as limiting the number or types of vehicles allowed, dates and times of use (seasonal restrictions), limiting use to existing roads and trails, or limiting use to designated roads and trails. Under this designation, use would be allowed only on roads that are signed for use. Combinations of restrictions are possible, such as limiting certain types of vehicles during certain times of the year**.**

Closed Area: Designated areas and trails where the use of off-road vehicles is prohibited. The use of off-road vehicles in closed areas may be allowed for certain reasons; however such use shall be made only with the approval of the authorized officer.

Designated Roads: Specific roads and trails identified by the managing partners where some type of motorized vehicle use is appropriate and allowed either seasonally or year-round.

Open Road: Designated road where off-road vehicles may be operated, subject to operating regulations and vehicle standards set forth in BLM Manuals 8341 and 8343; or a road where all types of vehicles are permitted at all times, subject to the standards in BLM Manuals 8341 and 8343.

Limited Road: Designated road where the use of off-road vehicles is subject to restrictions, such as limiting the number or types of vehicles allowed, dates and times of use (seasonal restrictions), limiting use to existing roads and trails, or limiting use to designated roads and trails. Under the designation, use would be allowed only on roads that are signed for use. Combinations of restrictions are possible, such as limiting certain types of vehicles during certain times of the year**.**

The vast majority of the roads within the Monument that are designated as limited are available for administrative uses, public foot, equestrian, and non-motorized traffic (such as mountain bikes). The following are exceptions:

- Any road within ¼ mile of the Washburn Administrative Site is closed to all public access except for specific events authorized by the BLM.
- The road between the Goodwin Education Center and Painted Rock would remain closed to all public use from March 1st to July 15th to protect nesting birds.
- Roads (and trails) within the Caliente Mountain WSA and areas identified for management for wilderness character would be closed to motorized uses and mechanized uses such as mountain bikes.

Closed Road: A road that is closed to vehicle use and will either be actively rehabilitated or allowed to naturally rehabilitate.

2.18.2 Goals, Objectives, Management Actions, and Allowable Uses Common to All Action Alternatives

2.18.2.1 Goals

Identify and manage an effective travel network that supports management activities and appropriate public uses while protecting the objects of the Monument Proclamation.

2.18.2.2 Objectives, Management Actions, and Allowable Uses

Objective: Provide a safe and effective travel network (including roads and trails) that supports administration and public recreation use of the Monument commensurate with the respective recreation management zone objectives.

Allowable Use

Travel designation is limited area for the Backcountry and the Frontcountry zones. The Primitive zone will be designated as a closed area. No areas in the Monument are designated as open areas based on the Monument Proclamation. Under the Monument Proclamation, travel is only allowed on existing roads.

Management Actions

- Develop a comprehensive travel information program that includes road/trail signing, brochures, web information, and other appropriate media to inform visitors of conditions, vehicle limitations, rules, regulations, and other safety concerns.
- Roads would be subject to temporary closure during wet periods and after washouts to minimize road damage, reduce resource impacts, and for public safety reasons. These closures would typically be of short-term duration until conditions improve.

Objective: Provide reasonable access to private surface land inholders and mineral estate owners as required by law.

Management Action

See Lands and Realty section for right-of-way authorizations.

Objective: Ensure that the Monument road network is designed and managed to minimize impacts to natural and cultural resource values.

Management Actions

- Develop a road maintenance plan that identifies and determines maintenance techniques or reconstruction opportunities to protect cultural and biological resource sites.
- Identify and close unneeded or redundant travelways.
- Upon acquisition of private land inholdings, access roads to these parcels would be evaluated for inclusion in the transportation network or closure based on the following criteria:
  - Are they compatible with the objectives of the RMP for protection of cultural and natural resources?
  - Do they provide necessary access for administrative purposes?
  - Do they enhance public recreation access or experiences identified for the respective recreation management zone?
- Roads that meet at least the first two criteria will be designated as limited use roads (administrative access only); roads that meet at least the first and last criteria will remain open to public access. All other roads will be closed.
- Minimize impacts to water quality and other resources through proper design, maintenance, or minor rerouting of roads.
- Take actions to reduce illegal off-road travel such as education, enforcement, and placement of physical barriers.
- All existing roads within the Primitive zone would be designated as closed to public use. These roads will be converted into trails or rehabilitated back to their natural state. Certain specific routes that are necessary for administrative access would be available for this use based on a minimum requirements

assessment (that is, an assessment that determines vehicle access as a necessity with no reasonable alternatives for access, for example, to carry heavy materials for fence repair or to remove and haul out derelict structures).

2.18.3 Alternative 1

Under Alternative 1, the travel network will be designated as shown on Map 2-2. The miles of specific road designations are listed below:

Road Designations	
Open Roads (to the public)	269 miles
Limited Roads	97 miles
Closed Roads	81 miles
Trails	7 miles

Area Designations	
Open	0 acres
Limited	175,120 acres
Closed	83,200 acres

2.18.3.1 Backcountry Zone

Road Maintenance Objective: The majority of the roads in the Backcountry zone would be maintained at level 1 and 2 BLM maintenance levels (see Appendix J, Road Maintenance Classifications). Many of the roads in this zone would be maintained only based on significant public safety issues or to prevent and/or repair damage to a natural or cultural resource. Roads in this zone would only be accessible with high clearance or four-wheel drive vehicles.

Allowable Use

Only street-licensed vehicles would be allowed in the Backcountry zone. For example, no green or red sticker vehicles registered under the state OHV program would be allowed.

2.18.3.2 Frontcountry

Road Maintenance Objective: BLM-administered roads in the Frontcountry zone would be maintained at a level of 3 or 4 (see Appendix J, Road Maintenance Classifications). This would allow most passenger cars to access popular recreation sites in good weather.

Management Action

BLM would work with San Luis Obispo County to maintain Soda Lake Road comparable to a maintenance level 3 gravel road.

Allowable Use

Only street-licensed vehicles would be allowed on BLM roads in the Frontcountry zone. For example, no green or red sticker vehicles would be allowed.

2.18.4 Alternative 2 (Preferred)

Under Alternative 2, the travel network will be designated as shown on Map 2-3. The miles of specific road designations are listed below:

Road Designations	
Open Roads (to the public)	278 miles
Limited Use Roads	124 miles
Closed Roads	45 miles
Foot Trails	7 miles

Area Designations	
Open	0 acres
Limited	207,658 acres
Closed	54,464 acres

2.18.4.1 Backcountry Zone

Road Maintenance Objective: The majority of the roads in the Backcountry zone would be maintained at a level 1 and 2 BLM maintenance standard (see Appendix J, Road Maintenance Classifications). Many of the roads in this zone would be maintained only based on significant public safety issues or to prevent and/or repair damage to a natural or cultural resource. Roads in this zone would only be accessible with high clearance or four-wheel drive vehicles.

Allowable Use

Only licensed vehicles and other vehicles registered through the green or red sticker state OHV program such as off-road motorcycles, four wheelers, and other OHVs would be allowed on designated roads within the Monument. See supplemental rules for details.

2.18.4.2 Frontcountry

Road Maintenance Objective: BLM roads in this zone would be maintained at a level of 3 or 4 (see Appendix J, Road Maintenance Classifications). This would allow most passenger cars to access popular recreation sites in good weather.

Management Action

Work with San Luis Obispo County to maintain Soda Lake Road comparable to a level 4 BLM maintenance standard.

2.18.5 Alternative 3

Under Alternative 3, the travel network will be designated as shown on Map 2-4. The miles of specific road designations are listed below:

Road Designations	
Open Roads (to public)	322 miles
Limited Use Roads	115 miles
Closed Roads	10 miles
Trails	7 miles

Area Designation	
Open	O Acres
Limited	248,243 Acres
Closed	17,984 Acres

2.18.5.1 Backcountry Zone

Road Maintenance Objective: Same as Alternative 1 and 2.

Allowable Use

Only licensed vehicles and other vehicles registered with state OHV programs (green or red sticker vehicles) such as off highway motorcycles, four wheelers, and other OHVs would be allowed on designated roads within the Monument. See Appendix I, Supplemental Rules for Public Use, for details.

2.18.5.2 Frontcountry

Road Maintenance Objective: Same as Alternative 1 and 2.

Management Action:

Work with San Luis Obispo County to maintain Soda Lake Road comparable to a BLM level 4 paved road.

2.18.6 No Action

Under the no action alternative, the travel network would be the same as shown on Map 2-4. The miles of specific road designations are provided below:

Road Designations	
Open Roads (to public)	322 miles
Limited Use Roads	115 miles
Closed Roads	10 miles
Trails	7 miles

2.18.6.1 Goal

Access will be provided to make use of recreational opportunities within the Monument as consistent with the Monument Proclamation.

2.18.6.2 Objective

Provide access for recreation and to facilities, where compatible with sensitive resources.

2.18.6.3 Management Actions

- Under the Monument Proclamation, no off-road motorized or mechanized travel would be permitted.
- Roads are subject to temporary closure during wet periods and after washouts for public safety reasons.
- Areas will be monitored each year to determine if routes should be closed permanently or seasonally. Closures are designed to reduce safety hazards (fire danger and washouts), impacts to sensitive resources, and unnecessary damage to roads.
- Provide access to Painted Rock. The portion from Soda Lake Road to the Goodwin Education Center will be upgraded to an all-weather surface. Access from Selby Road will be maintained for administrative use and for groups having special permission.

2.19 Minerals

The Monument contains a number of extractable minerals, that is, minerals that are removed from the land by mining, through a well bore, or by other means. These minerals include oil and gas, sand and gravel, gypsite, phosphate, sodium sulfate, and others.

Under the Monument Proclamation, all federal lands and interests in lands within the boundaries of this Monument were appropriated and withdrawn from all forms of entry, location, selection, sale, or leasing or other disposition under the public land laws, including but not limited to withdrawal from location,

entry, and patent under the mining laws, and from disposition under all laws relating to mineral and geothermal leasing, other than by exchange that furthers the protective purposes of the Monument. However, the establishment of the Monument was also subject to valid existing rights. Accordingly, only those valid leases, claims, and other rights that existed as of the date of the Proclamation, January 17, 2001, may see mineral development on federal lands within the Monument.

These minerals will be managed in accordance with the *Mineral Leasing Act* of 1920, as amended; the *Mining and Minerals Policy Act* of 1970; the *Mining Law* of 1872, as amended; the *Federal Onshore Oil and Gas Leasing Reform Act* of 1987 (*Reform Act*); FLPMA; 43 CFR, Onshore Orders 1-8, Notices to Lessees; NEPA; the *Energy Policy Act* of 2005; and other laws, regulations, and orders, and also in accordance with all applicable state, county, and local laws and ordinances.

Most aspects of the Monument's mineral development are controlled by law and policy that give little latitude for discretion at the RMP level. Therefore, there is a fairly narrow range of alternatives for managing minerals within the CPNM, both solid and oil and gas. BLM will require existing lessees to strictly adhere to all laws, regulations, and policies that govern existing oil and gas leases, while at the same time recognizing that existing leases grant the lessee certain rights. No additional requirements can be placed on an existing lessee that conflict with the rights already granted by the lease. However, BLM will actively work with leaseholders and encourage them to implement management practices that recognize and protect the special qualities of CPNM resources.

As discussed in Chapter 3, much of the monument is underlain with privately owned mineral rights. This private ownership interest is not subject to the same framework of regulations that apply to Federal leases and so is discussed as a separate topic in the alternatives. Land management decisions must not preclude the ability of private mineral owners to make reasonable use of the surface, as determined in consideration of deed provisions as well as state and Federal law. Reasonable surface use for the development and operation of subsurface rights will be evaluated based on the design criteria and other direction of this plan. Private mineral development is subject to the provisions of NEPA (and/or *California Environmental Quality Act*), the Endangered Species Act and applicable state, county, and local laws and ordinances.

2.19.1 Goals, Objectives, and Management Actions Common to All Action Alternatives

2.19.1.1 Goals

- Manage the exploration and development of oil and gas on existing federal leases in a manner that protects the objects of the Monument Proclamation.
- Work with state, county, and local agencies to ensure that the mission and purpose of the CPNM are furthered and only reasonable uses of public lands are made to access and develop private mineral estate.
- Manage the development of mineral material borrow sites on federal mineral estate for emergency and/or administrative use in a manner compatible with the mission of the CPNM.

2.19.1.2 Objectives

All Mineral Exploration and Development

Establish standard operating procedures (SOPs) and implementation guidelines, including best management practices (BMPs), for all projects to ensure that monument resources are protected while allowing reasonable access for valid existing rights for mineral development.

Existing Oil and Gas Leases

- Manage existing leases to ensure timely lease restoration.
- Enforce good housekeeping requirements (that is, require operators to maintain a neat and orderly appearance of sites, remove junk and trash, and otherwise minimize landscape intrusions).
- Manage leases to minimize fragmentation of habitat (including removal of redundant roads).
- Process permits in a timely fashion as required by the *Leasing Reform Act* of 1987, Onshore Orders and Notices to Lessees, the *Energy Act* of 2005, and other laws, regulations, and policies.

Geophysical

- Authorize geophysical activities within the Monument for exploration of mineral resources inside or outside the boundary of the Monument in a manner that protects the objects of the Monument Proclamation.

Other Minerals (Solids)

- Provide for small volumes (less than 10 yards per incident) of administrative/emergency sand and gravel materials (for road maintenance).

2.19.1.3 Management Actions

Existing Oil and Gas Leases

- All projects will be reviewed and the SOPs contained in Appendix O (Biological Standard Operating Procedures) and Appendix P (Standard Operation Procedures for Oil and Gas) will be applied.
- BLM inspection staff will inspect facilities for environmental compliance on federal lands. Shut-in or abandoned wells will be inventoried and evaluated for final plugging and restoration prioritization.
- As leases stop producing, process termination or expiration in a timely manner.
- Conduct annual surface inspection on all leases within the CPNM to identify and remediate any hazards or impacts to Monument resources such as threatened and endangered species and cultural resources.
- Conduct training for operators regarding CPNM management goals and sensitive resource values and recommended best management practices to protect these values. Additional CPNM-specific BMPs may be developed.
- Manage the existing oil producing acreage on the southern side of the Caliente Range to maintain ecological processes and to assure lease restoration upon final abandonment of the last well.
- Review (in conjunction with operators) existing disturbed areas (such as roads and well pads) and require reclamation of those areas determined to be redundant.
- Design roads, well pads, and facilities to impact and fragment the least acreage practicable. New facilities would be designed to maintain natural drainage and runoff patterns, reduce visual impacts, and reduce hazards to wildlife, especially California condors.
- Ensure best management practices are followed. Examples include:
  - Placing pipelines along roads and consolidating facilities when feasible.

  - Selecting appropriate paint colors to minimize visual impacts and otherwise meeting VRM goals.
  - Timely interim reclamation/reduction of footprint of operations after initial drilling.
- Wells that are not commercially developed would be reclaimed to natural contours and revegetated as soon as appropriate; that is, restoration methods would consider timing of planting, acceptable species and evaluation criteria, and would be tailored to area-specific resource conditions and be compatible with the Monument Proclamation.
- Applications for Permit to Drill, Sundry Notices (leasehold activities requiring surface disturbance), and Final Abandonment Notices would be reviewed using the existing NEPA approval process.
- Require timely plugging and abandonment of depleted wells. This includes plugging the well bore with cement, removing all materials and equipment, and recontouring/revegetation as specified in the conditions of approval.

Other Minerals (Solids)

- Identify potential site for emergency/administrative sand and gravel extraction (minor amounts, less than 10 yards per incident) for road maintenance, etc.

Private Mineral Estate (Use of BLM Surface for Private Mineral Activities)

- For all private oilfield actions that require use of BLM surface, including cross-country travel on BLM lands to reach private minerals, authorization would be required that would take avoidance measures and mitigation that would protect the objects of the Monument Proclamation.

- BLM would meet with operators to determine what sort of limitations could be placed on exploration and development activities while still meeting the legal requirements to provide "reasonable access." This would include multiple wells per pad, seasonal restrictions, modifications to meet visual goals, and others.

2.19.2 Alternative 1

2.19.2.1 Existing Oil and Gas Leases

Objective: Minimize the effects of oil and gas operations at BLM expense for existing and new operations.

Management Actions

- Provide extra resources (such as funds and expertise) to operators at BLM expense for existing and new operations.
- Inspect more frequently (annually).
- Encourage operators in CPNM to focus on plugging or returning to production, federal idle wells first, then fee wells.
- Prioritize termination of all idle leases in the Monument.
- Maximize interim reclamation of redundant or unnecessary disturbed areas.

2.19.2.2 Solid Minerals

Objective: Facilitate Monument road maintenance by identifying off-site sources.

Management Action

- All materials would be imported from outside the Monument.

2.19.2.3 Private Mineral Estate (Use of BLM Surface for Private Mineral Activities)

Objective (Non-Geophysical): Allow for reasonable exploration and development of private mineral estate consistent with protection of Monument resources.

Management Actions

- To the extent practical, minimize disturbance due to development of private minerals by purchasing split estate mineral estate and by emphasizing protection of resources
- Attempt to acquire private minerals from willing sellers in conjunction with purchase of surface estate, or for split estate minerals (where BLM already owns the surface) whenever specifically designated funds are made available by outside sources.

Objective (Geophysical Exploration): Authorize geophysical activities within the Monument for exploration of mineral resources inside or outside the boundary of the Monument in a manner that protects the objects of the Monument Proclamation.

Management Action

- Only authorize geophysical activities that do not result in damage to the objects of the Monument Proclamation. Such activities would include walking out and/or the use of helicopters to deploy geophone lines. On a case-by-case basis, all-terrain vehicles (ATVs) could be used to deploy geophone lines. Other activities would include limiting all source points (vibroseis and shot holes) to existing roads. On a case-by-case basis, drilling of shot holes using heliportable or small portable drills for underground detonation would be allowed off road.

2.19.3 Alternative 2 (Preferred Alternative)

2.19.3.1 Existing Oil and Gas Leases

Objective: Manage existing leases with additional requirements (above federal standards) to protect Monument resources.

Management Actions

- For all new lease actions, require protection based on lease stipulations, conditions of approval, and BLM regulations, consistent with other BLM leases within threatened and endangered habitat.
- Encourage and work with operators to implement management actions to lessen the visual impacts of existing developments.
- Over and above the requirements of BLM's Inspection and Enforcement Strategy, petroleum engineering technicians would conduct detailed lease inspections of federal oil facilities and wells more often than once every three years, with a goal of at least every other year. Inspections would occur more often when problems are found. The purpose of the inspections would be to ensure

compliance with all laws, regulations, conditions of approval, and other requirements that would affect areas such as safety, production and royalty accountability, and the environment.

- Encourage operators to concentrate on using federal wells to meet California Division of Oil, Gas, and Geothermal Research idle well requirements. These requirements call for each operator to eliminate (return to production or plug) 4 percent of all 5-year idle wells (federal or private) per year. BLM would encourage operators to focus on federal wells within the Monument.
- Prioritize termination of all idle leases in the Monument.
- Allow access for geophysical exploration, but with conditions of approval that ensure protection of resources (such as threatened and endangered species).
- Encourage operators to conduct interim reclamation of redundant or unnecessary disturbed areas.

2.19.3.2 Solid Minerals

Objective: Provide materials to facilitate limited on Monument road maintenance.

Management Action

- Identify and develop a material site in the Monument for limited administrative/emergency Monument use (less than 10 yards per incident) on BLM roads. No other mineral materials uses would be authorized.

2.19.3.3 Private Mineral Estate (Use of BLM Surface for Private Mineral Activities)

Objective (Non-Geophysical): Allow for reasonable exploration and development of private mineral estate consistent with protection of Monument resources.

Management Actions

- Primary focus is to attempt to acquire private minerals from willing sellers whenever surface estate is purchased.
- Secondary focus is to attempt to acquire (from willing sellers) split estate private minerals (where BLM already owns the surface).

Objective (Geophysical Exploration): Authorize geophysical activities within the Monument for exploration of mineral resources inside or outside the boundary of the Monument in a manner that protects the objects of the Monument Proclamation.

Management Action

- Only authorize geophysical activities that do not result in damage to the objects of the Monument Proclamation. Such activities would include walking out and/or the use of helicopters to deploy geophone lines. On a case-by-case basis, ATVs could be used to deploy geophone lines. Other activities would include limiting all source points (vibroseis and shot holes) to existing roads. On a case-by-case basis, drilling of shot holes using heliportable or small portable drills for underground detonation would be allowed off road.

2.19.4 Alternative 3

2.19.4.1 Existing Oil and Gas Leases

Objective: Manage existing leases to standards required by law.

Management Actions

- For all new lease actions, require protection based on lease stipulations, conditions of approval, and BLM regulations, consistent with other BLM leases within threatened and endangered habitat.
- As required by BLM's Inspection and Enforcement Strategy, petroleum engineering technicians would conduct detailed lease inspections of federal oil facilities and wells at least every three years, more often when problems are found. The purpose of the inspections would be to ensure compliance with all laws, regulations, conditions of approval, and other requirements that would affect areas such as safety, production and royalty accountability, and the environment.
- Require wells that have been idle (not active) for longer than 5 years to be plugged or returned to production per agreement with the California Division of Oil Gas and Geothermal Resources (4 percent per year, federal or non-federal).
- Pursue termination of idle leases in the Monument (keep two existing idle leases at their current place on the priority list for termination). Currently, the two leases are very low on the priority list for termination because there is no surface disturbance on the CPNM portion of the lease and both operators are major oil companies, posing virtually no risk. They both have large comprehensive bonds (nationwide with BLM, and statewide with California Division of Oil Gas and Geothermal Resources) and have never defaulted on a single lease anywhere in the country.
- Reclaim disturbed areas only upon final abandonment or lease termination.

2.19.4.2 Solid Minerals

Objective: Provide materials to facilitate limited Monument road maintenance.

Management Action

- Identify and develop a material site in the Monument for limited Monument use.

2.19.4.3 Private Mineral Estate (Use of BLM Surface for Private Mineral Activities)

Objective (Non-Geophysical): Allow for reasonable exploration and development of private mineral estate consistent with protection of Monument resources.

Management Action

- Attempt to acquire private minerals from willing sellers only in conjunction with purchase of surface estate.

Objective (Geophysical Exploration): Authorize geophysical activities within the Monument for exploration of mineral resources inside or outside the boundary of the Monument in a manner that protects the objects of the Monument Proclamation.

Management Action

- Only authorize geophysical activities that do not result in damage to the objects of the Monument Proclamation. Such activities would include walking out and/or the use of helicopters to deploy geophone lines. On a case-by-case basis, ATVs could be used to deploy geophone lines. Other activities would include limiting vibroseis to existing roads to the maximum extent practical. Drilling

shot holes using heliportable or small portable drills for underground detonation would be allowed off road (on a case-by-case basis) and on existing roads.

2.19.5 No Action Alternative

There is no explicit goal in the existing plan. Minerals would continue to be managed to permit reasonable use and development as existing rights, subject to requirements of state and federal regulations.

2.19.5.1 Existing Oil and Gas Leases

Objective: Manage existing leases to standards required by law.

2.19.5.2 Existing Oil and Gas Leases Management Actions

- For all new lease actions, require protection based on lease stipulations, conditions of approval, and BLM regulations, consistent with other BLM leases within threatened and endangered habitat
- Petroleum engineering technicians would inspect all oil facilities and wells at least every three years, more often when problems are found. The purpose of the inspections would be to ensure compliance with all laws, regulations, conditions of approval, and other requirements that would affect areas such as safety, production and royalty accountability, and the environment.
- Require wells idle for 5 years to be plugged or returned to production per agreement with California Division of Oil, Gas, and Geothermal Research (4 percent per year, federal or non-federal).
- Allow access for geophysical exploration with all conditions of approval necessary to ensure protection of the objects of the Monument Proclamation (such as threatened and endangered species, cultural resources, and others).
- Attempt to acquire private minerals from willing sellers only in conjunction with purchase of surface estate.
- Encourage operators to conduct interim reclamation of redundant and unnecessary disturbed areas.

2.19.5.3 Solid Minerals Objective

Objective: Provide materials to facilitate limited Monument road maintenance.

2.19.5.4 Solid Minerals Management Action

- Develop a mineral materials site (for example, sand and gravel) in the Monument for limited administrative/emergency use in the Monument.

2.19.6 Private Mineral Estate

No Monument-specific direction provided. Management would be based on existing federal and state policy.

2.20 Lands and Realty

This section provides direction for realty actions within the Monument grouped into two major categories:

- Land tenure adjustments, which are primarily acquisition of additional private lands to increase the public land acreage within the Monument.
- Realty actions and utility corridors, which involve authorizing access across and use of public lands within the Monument for specific purposes.

The Proclamation establishing the CPNM is subject to valid existing rights. The Monument Proclamation provides specific guidance regarding acquisition of private inholdings, both surface estate and mineral estate. Lands would be acquired by BLM under the authority of FLMPA Section 205 or under any specific authority enacted subsequent to the plan. The requirements of the *Uniform Relocation and Real Property Acquisition Policies Act* of 1970 would need to be met in all land acquisitions. The Monument Proclamation provides specific guidance regarding land use authorizations such as rights-of-way, recreation and public purpose leases, land use permits, and easements. This plan incorporates the guidance under the authority of FLPMA Title V, Sections 501–511; Section 28 of the *Mineral Leasing Act* of 1920, as amended ; and the BLM Right-of-Way Manual, Sections 2801.11 and 2801.12.

2.20.1 Goals, Objectives, and Management Actions Common to All Action Alternatives

2.20.1.1 Goals

- Land tenure adjustments such as acquisition within the Monument would be managed to further the overall purposes of the Monument Proclamation, which are protection of natural features, including endangered, threatened, and rare animal and plant species; the San Andreas Fault zone; Soda Lake; fossil resources; and cultural resources.
- All realty actions such as rights-of-way, land use permits, and other realty actions within the Monument would comply with the overall purposes of the Monument Proclamation.
- Eliminate unauthorized use of public lands.

2.20.1.2 Objectives and Management Actions

Land Tenure

Objectives

- Retain all lands within the CPNM currently in federal ownership, except for certain specific situations that would further the purposes of the Monument Proclamation as described in the management actions below.
- Consolidate and/or acquire land and/or mineral estate from willing sellers.

Management Actions

- Acquire all non-federal land and/or mineral estate within the boundaries of the Monument if it may further the protective purposes of the Monument, from willing sellers by purchase, exchange, or donation, as opportunities arise.
- Work with partners, such as TNC and CDFG, to pool resources and avoid duplication of effort.
- Where land cannot be acquired, pursue conservation easements or other forms of protection.
- The only form of land exchange within the Monument boundary, as stated in the Monument Proclamation, would be an “exchange that furthers the protective purposes of the Monument.” Exchanges would be evaluated on a case-by-case basis. Lands acquired with Land, Water, and

Conservation Funds are not available for disposal or exchange. All lands acquired through a compensation program would only be exchanged after consultation with appropriate agencies, such as USFWS and CDFG.

- Federal lands within the Monument are "…hereby appropriated and withdrawn from all forms of entry, location, selection, sale or leasing or other disposition under the public land laws…." Therefore, these federal lands are not open to application for land sales, state grants, *Recreation and Public Purposes Act* leases or sales, desert land entries, native allotments, or agricultural leases.
- Use so-called friendly condemnation authority to acquire parcels within the Monument where the landowners are willing sellers, but are unable to complete a sale to BLM due to title problems. (This process is described further in Lands and Realty, Section 3.19 in the Affected Environment chapter.)

Realty Actions and Utility Corridors

Objectives

- Ensure that all real estate actions initiated by BLM protect or enhance the values identified within the Monument Proclamation.
- Ensure that all real estate actions initiated by parties other than BLM are compatible with the values identified within the Monument Proclamation.
- Manage all existing authorizations within the Monument in keeping with overall purposes of the Monument Proclamation while respecting valid existing rights.

Allowable Uses

- The Monument would be a right-of-way avoidance area. This means that applications for new rights-of-way for utility lines, wind energy, solar energy, pipelines, or other purposes that would cross the Monument and not directly serve a land parcel within the Monument would be discouraged and would likely be rejected. The U.S. could reserve rights-of-way for federal facilities, administrative roads, or utility rights-of-way.
- Right-of-way applications would be evaluated on a case-by-case basis, such as applications for research or scientific rights-of-way, or existing roads for private lands within the Monument. If granted, rights-of-way would contain terms and conditions to protect resources, such as any listed species and their habitat, other wildlife and their habitat, significant geologic features, and paleontologic and cultural resources.
- Since the Monument Proclamation withdrew the federal lands, no new withdrawals would be pursued or anticipated.
- Applications for land use permits, such as filming permits, would be evaluated on a case-by-case basis. A permit is required for all commercial filming activities on public lands (this process is described further in Lands and Realty, Section 3.19 in the Affected Environment chapter.) No apiary permits will be issued in the Monument. Still and video photography of the pictograph images at Painted Rock and other rock art sites in the Monument would be prohibited for commercial purposes. Permits would only be issued for photography related to activities of accredited scientific, academic, or research institutions (for example, museum or university). Applications would be evaluated on a case-by-case basis.
- Pursue extinguishing overlapping withdrawals within the Monument, such as the "National Cooperative Land and Wildlife Management Areas" and the "Classification and Multiple Use" classifications.

- Pursue relinquishing unneeded, existing rights-of-way, such as power lines, private easements, and county road easements.
- BLM would survey and monument (place survey markers) the exterior boundary of the Monument and any other boundaries within the Monument needed for administrative purposes.
- The Caliente Mountain WSA and all areas to be managed for wilderness character (Primitive recreation management zone) would be rights-of-way exclusion areas (with the exception of required administrative and private inholder access).
- The two current utility corridor designations would be extinguished in keeping with the management of the Monument as a right-of-way avoidance area. The existing rights-of-way currently within the designated utility corridors would be continued as long as the holders maintain the authorizations. Note: BLM Manual Part 2801 directs that designated utility corridors can be extinguished through a land use planning decision.

2.20.2 Alternative 1

2.20.2.1 Land Tenure

Objective: Increase the amount of protected land for objects identified under the Monument Proclamation, with particular emphasis on rare species, important ecological habitats, and significant cultural resources.

Management Action

- Acquire lands or interest as parcels become available (such as when willing seller contacts BLM, county tax parcel, conservation organization such as Packard Foundation contacts BLM).

2.20.2.2 Rights-of-Way and Utility Corridors

Objective: Eliminate all existing communication rights-of-way on the Monument upon expiration of current authorization.

Management Actions

- Communication rights-of-way will not be renewed.
- No new communication rights-of-way will be authorized.

2.20.3 Alternative 2

2.20.3.1 Land Tenure (Same as Alternative 3)

Objective: Direct acquisition efforts to those lands with important biological and cultural resources, especially those that currently have limited acreage in public ownership.

Management Actions

- Acquire lands by donation, compensation, exchange, or purchase. Lands will be acquired based on availability, biological or cultural values, and management needs.
- Identify target inholdings. Encourage sale or transference of target properties through a variety of methods and incentives.

- Primary focus would be to acquire property that supports important cultural resources or habitat for and populations of species that are poorly represented on public lands such as sphinx moth and California jewelflower.
- Secondary focus would include properties with important ecological characteristics (for example, Soda Lake and its playa system) that are potential core areas for the San Joaquin suite of rare species (giant kangaroo rat, San Joaquin kit fox, bull-nosed leopard lizard, San Joaquin antelope squirrel), or that support other important CPNM species (spadefoot toad, fairy shrimp, mountain plover, rare plants).
- Target inholdings that are important in maintaining the linkage between the CPNM and the San Joaquin Valley.
- Target other inholdings that may have management needs or risk of development or occupancy.
- Develop and maintain a GIS database showing the location of target resources to facilitate acquisition efforts.

2.20.3.2 Rights-of-Way and Utility Corridors

Objective: Minimize communication rights-of-way authorizations on the Monument.

Management Actions

- No new or renewed communication right-of-way would be authorized unless they could meet the objectives of the Monument Proclamation and the VRM classifications in this plan. All applications would be analyzed and authorized on a case-by-case basis. However, consideration will only be given to applications that are proposing to use an area that already has existing sites and can utilize existing facilities with no or negligible visual intrusions. As part of the application process, project proponents would need to provide a visual simulation of the project showing mitigating features to reduce its visibility from key observation points within the Monument.
- Require applicants to clearly demonstrate that no feasible off-Monument alternatives exist for placement of facilities prior to analyzing placement within the CPNM (that is, the burden will be on the applicant to demonstrate that location on the Monument is clearly justified given the management goals for the area).
- Work with existing communication site right-of-way holders to find alternative off-Monument locations for facilities once their current leases expire.

2.20.4 Alternative 3

2.20.4.1 Land Tenure (Same as Alternative 2)

Objective: Direct acquisition efforts to those lands with important biological and cultural resources, especially those that currently have limited acreage in public ownership.

Management Actions

- Identify target inholdings. Encourage sale or transference of target properties through a variety of methods and incentives.

- Primary focus would be to acquire property that supports important cultural resources or habitat for and populations of species that are poorly represented on public lands such as sphinx moth and California jewelflower.
- Secondary focus would include properties with important ecological characteristics (for example, Soda Lake and its playa system), that are potential core areas for the San Joaquin suite of rare species (giant kangaroo rat, San Joaquin kit fox, bull-nosed leopard lizard, San Joaquin antelope squirrel), or that support other important CPNM species (spadefoot toad, fairy shrimp, mountain plover, rare plants).
- Target inholdings that are important in maintaining the linkage between the CPNM and the San Joaquin Valley.
- Develop and maintain a GIS database showing the location of target resources to facilitate acquisition efforts.

2.20.4.2 Rights-of-Way and Utility Corridors

Objective: Allow new communications facilities and maintain existing facilities consistent with the Monument Proclamation.

Management Actions

- Issue authorizations for new and existing facilities.
- Renew existing authorizations that may include expansion of existing facilities.

2.20.5 No Action Alternative

2.20.5.1 Goals

- Acquire remaining private lands to protect and enhance natural and cultural values.
- Allow new land uses consistent with the mission of the CPNM.

2.20.5.2 Objectives

- Acquire, from willing sellers, all remaining private lands within the boundaries of the CPNM.
- Evaluate new land use applications for consistency with the long-term goals and objectives.

2.20.5.3 Management Actions

- Acquire lands by donation, compensation, exchange, or purchase. Lands will be acquired based on availability, biological or cultural values, and management needs.
- Acquire remaining private land to protect and enhance natural and cultural values.
- Establish agreements or acquire easements to protect resources with owners of parcels that cannot be acquired in fee.
- Cooperate with San Luis Obispo County to address private land development issues within the CPNM.

- Retain all acquired lands and original public land within the CPNM, but allow for exchange of parcels between BLM, TNC, and CDFG if mutually beneficial for management purposes. Retain all original mineral rights on split estate lands.
- The managing partners may authorize actions that are consistent with the Monument Proclamation. The CPNM will be a right-of-way avoidance area, meaning that new applications will be discouraged and may be rejected.
- The managing partners will evaluate and may authorize actions affecting their respective properties.
- Land use authorizations will include measures that result in an environmentally superior alternative.
- New applications that are inconsistent with the goals and objectives will not be authorized. *Recreation and Public Purposes Act* patent applications, desert land entry applications, and Indian allotment applications are considered inconsistent with the objectives and will be rejected.

2.21 Research Management

The Monument Proclamation directs BLM to care for and manage the biological, archeological, historical, paleontological, and geological resources of the Monument. Research provides critical knowledge to make informed, effective, and timely decisions regarding these resources and the effects of allowable uses and outside factors such as climate change or air quality that may affect the Monument. Research is a critical component of an adaptive management approach. It provides the public with an increased understanding of the resources and the value of protecting them. Information gained through research better equips the public to provide informed input about how their public lands should be managed. Some research, as with studies along the San Andreas Fault, can increase scientific understanding and benefit public welfare. Monitoring ongoing changes at the micro and macro level, surveying existing resources, and inventorying new resources are necessary for maintaining an overall understanding of the natural processes that are occurring and for adapting management actions in response to new information. The goal, objectives, and management actions for research activities are stated below.

2.21.1 Goal, Objectives, and Management Actions Common to all Action Alternatives

2.21.1.1 Goal

Conduct research within the Monument to improve understanding, management, and protection of Monument resources and to further scientific knowledge of those resources.

2.21.1.2 Objectives and Management Actions

Research Priority

Objective: Authorize and encourage on-Monument research in the following order of priority:

- Research that has direct implications for improving management and protection of objects of the Monument Proclamation as identified as objectives in the RMP and the Conservation Target Table (Appendix C).
- Research that furthers scientific understanding of Monument resources.
- Research that has scientific value, but may have only indirect benefits for understanding or management of Monument resources.

Management Actions

- Identify research priorities and update or revise annually or on an as-needed basis.
- Working through organizations such as The Nature Conservancy and universities, allow outside review by scientific experts, as needed, to provide recommendations on study design or effectiveness in meeting management goals.
- Focus research efforts on projects or studies whose topics are useful in formulating management actions and promote conservation, with special emphasis on listed or sensitive species and their habitats and significant cultural resources.
- Develop a strategy for prioritizing multiple research proposals.
- Maintain the Conservation Target Table (Appendix C) to determine management prescriptions of biological resources. Encourage and assist researchers in developing studies to answer questions relating to the resource targets and how management actions affect them. Update the table as knowledge is gained.

Research Outreach and Support

Objective: Provide a framework that encourages and facilitates quality research in areas of biologic, paleontologic, geologic, and cultural resources.

Management Actions

- Provide support, such as housing, within the Monument for researchers when available. Investigate other housing opportunities such as acquiring used mobile units or working with neighboring communities to identify available housing in the private sector.
- Provide existing GIS, weather, and vegetation mapping data or other data as available, to researchers.
- Work with species experts, members of academia, and other professionals to encourage research involvement. Encourage research projects that will aid in maintaining stable and increasing populations of threatened and endangered species, investigating topics identified in recovery plans.
- Consider other outreach methods including sponsoring research symposia to inform the scientific and professional communities of research opportunities within the Monument.
- Coordinate with partners and the scientific community to assess opportunities for establishing an on-Monument research facility.

Research Data

Objective: Data gathered through research, inventories, and monitoring will be made available to the scientific community and the public to the greatest extent possible. This will exclude proprietary information such as cultural and paleontological resource data.

Management Actions

- Use state-of-the-art equipment and technology consistent with BLM standards for accurate data collection, retrieval, and storage, and for the benefit of information-sharing with the public, educational institutions, and other governmental agencies.

- Create a local information archive system of CPNM-generated research, inventory, and survey data for easy retrieval and use by the scientific community, other agencies, partner organizations, and others, to be maintained in conjunction with the Carrizo Library (excluding cultural resources, Native American, or other proprietary information).
- Manage data consistent with CPNM, BLM, and National Landscape Conservation System (NLCS) policies such as the Department of the Interior's *Adaptive Management Technical Guide* and the NLCS's *Science Goals and Objectives.*
- Maintain a list of past and current research, inventory, and survey data on the CPNM website for use by the public.
- Maintain current aerial photography imagery of the CPNM, digital GIS layers of resources and infrastructure, and utilize other technologies as changes occur and staffing and funding is available.
- Develop an educational component to data sharing in conjunction with the Goodwin Education Center and the Friends of the Carrizo to provide outreach to schools and the public.
- Increase the Monument's capacity to collect relevant weather data across the landscape in varying habitats.

Research Proposal Evaluation/Authorization

Objective: Evaluate and process proposals in a timely manner while ensuring that projects meet Monument research objectives and protect sensitive resource values. The application process/form is included in Appendix D, Research.

Management Actions

- All research projects will undergo an evaluation and approval process which will include:
- An assessment of its priority level (see Research Priority objective).
- An appropriate level of environmental analysis (NEPA) by BLM staff.
- Incorporating project-specific stipulations.
- A final written determination, which will be in the form of an authorization, a request for changes to the proposal for resubmission, or denial of the project. (Cultural research and paleontological proposals must meet permit standards and receive approval from the State Office and Field Office to proceed in the field or they must be authorized through a volunteer or cooperative partnership meeting BLM's Cultural Resources Manual 8100 and permit standards).
- Proposals determined to require further evaluation will be submitted to knowledgeable members of the scientific community. These experts will review proposals for scientific merit, how best to incorporate findings into management actions, and to propose additional research needs.
- BLM will coordinate with the Monument's Native American Advisory Committee and tribal and other Native Americans before approving research for cultural resources.

2.21.2 No Action Alternative

Goal: Provide a framework that will both facilitate quality research and allow project staff to fulfill their responsibilities.

Objectives

- Encourage interest among academic and professional communities to conduct research that addresses management needs.
- Maintain research facilities on the CPNM.
- Establish a Research Advisory Council to provide input to the managing partners on the scientific merit of proposed projects, review project findings, determine how best to incorporate finds into management actions, and identify additional research needs
- Develop a program to coordinate authorization, communications, facilities logistics, and scheduling of field activities.
- Make information available to other agencies, organizations, and individuals with an interest or responsibility in managing similar natural lands.
- Develop and update a map of known vegetation community boundaries at the 1:24,000 scale, correlated to soil type.
- Develop an understanding of the factors affecting the sustainability of the CPNM natural communities.
- Develop an understanding of the role of extraordinary events as an ecological process. Such events include fire, catastrophic runoff, wind and dust storms, prolonged drought, and disease epidemics.
- Determine if management activities cause large population fluctuations or seriously impair community function.
- Assess the effectiveness of management in achieving stated project goals.

Management Actions

- Develop a database of former and current researchers and interested professionals encompassing the range of resources, topics, and issues of the CPNM.
- Maintain an updated file of necessary research needs that may be disseminated to specialists, academic institutions, and other interested parties.
- Coordinate an outreach program to present information about CPNM research needs, project facilities, and other pertinent information.
- Make the Painted Rock Ranch and Washburn Ranch available to house researchers and meetings
- Secure agreements from 10 to 12 external specialists from various fields of study to serve on the council.
- Convene the council on an annual basis to review research progress.
- Require proposals for all research prior to initiation.
- If research is approved by the managing partners, confirm with a letter of authorization to the principle investigator stating that field work may begin.
- Provide a list of standard operating procedures required for all projects to every researcher.
- Designate a primary Research Coordinator.
- Create an information archive system at a central location for storage and retrieval of all project data, reports, and literature.

- Encourage researchers and staff to disseminate information in a timely manner through participation in regional conferences, symposia, and the publication process.
- Adopt a standard vegetation classification scheme. Acquire aerial photo coverage every five years.
- Develop and maintain an inventory of all species inhabiting the CPNM.
- Initiate and commit to long-term studies of the factors influencing community composition, structure, and function.
- Map all major perturbations (fire, flood, disease episodes) of vegetative communities.
- Determine the function of extraordinary events in plant and animal community dynamics.
- Conduct field observation at least seasonally of each biotic community to assess resource conditions and management effect.
- Employ recommendations based on monitoring results to help correct the causes leading to impacts.
- Develop and maintain a list of monitoring needs in order of priority.
- Conduct monitoring for high-priority issues. The results of these studies will be used to evaluate current and future management actions.

The Alternatives Summary table below lists by alternative the objectives and management actions from Chapter 2. See Chapter 2 for more specific details. The black shaded boxes with white lettering are the resource areas as listed in Chapter 2, with the resource subtopics below it shaded in dark gray, also with white letters. The objectives for the alternatives are in the light gray color boxes. The boxes containing text without shading are the management actions.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
2.4 Biological Resources			
All Wildlife and Vegetation Resources			
Follow SOPs and implementation guidelines for all projects to ensure that native wildlife and plants are protected.			Follow SOPs listed in the 1996 CPNA Management Plan
Review all projects to ensure compliance with the SOPs contained in Appendix O (Biological Standard Operating Procedures) and Appendix P (Standard Operating Procedures for Oil and Gas).			Implement the strategy described in Section III.a of the 1996 CPNA Management Plan.
Specific to Rare Plants, Plant Communities, Viable Populations of Plants and Animals, Native Perennial Grasses and Wildflowers, Habitat Structure Diversity, Avian Species, and Soda Lake **** for the NO ACTION ALTERNATIVE ONLY the following objectives apply ****			
• Mimic the range of natural processes and disturbances and restore and maintain natural communities. • Maintain representative shrub-scrub communities across the landscape to assure their continued existence. • Manage grasslands to increase the importance of native plants and promote full representation of native species. • Develop an understanding of the effects of livestock grazing on current biotic communities and plant and animal species. • Reintroduce native plants and animals when appropriate and sustain the integrity of natural vernal pool communities. • Determine location and extent of populations of exotic species and implement a prioritized control strategy. • Reduce impacts to non-listed native species through implementation of management and research actions. • Provide for the natural expansion and fluctuations of populations of non-listed native species. • Develop understanding of factors affecting sustainability of CPNM natural communities, and role of extraordinary events as an ecological process. • Determine if management activities cause large population fluctuations or seriously impair community function. This level of monitoring is intended to show large-scale impacts to species and their communities in a timely manner. Smaller-scale impacts usually require more detailed study to determine effects. Maintain riparian zones in proper functioning condition. • Assess the effectiveness of management in achieving stated project goals.			
Rare Plants			
Maintain and enhance viable populations of threatened and endangered and other rare plants on the Monument (see Table 3.2-3). Allow populations to naturally fluctuate (population size and distribution), but prevent from falling below critical levels.			Provide for the natural expansion and fluctuations of populations of listed species consistent with species recovery.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
– Map populations of threatened and endangered and other rare plants. Map potential rare plant habitat. – Monitor to confirm continued presence of rare plant populations and status of pollinator communities. – Support research into factors that influence target species' population trends and biology/ecology. – Manage rare plants and rare plant habitat as identified in the Conservation Target Table and using tools as outlined in the Vegetation Management Toolbox. – Design other management actions to avoid direct impacts. – Reduce competition from weedy species. – Modify, restrict, or prohibit grazing if needed to protect rare plant habitat. If necessary, fence known sites to preclude damage. – Promote seed bank recharge.			– Develop a list of regionally and locally extirpated species and determine priorities for reintroduction. – Assess habitat quality and environmental conditions to determine the probability of a successful reintroduction. – Weigh reintroduction benefits against risks to other species and communities.
Native Plants			
Rely only on natural process to maintain ecologically important plant communities and populations. Examples include native perennial grasslands, alkali sink, saltbush scrub, upper Sonoran sub-shrub scrub, vernal pools, bulb plants, native grasses, annual and perennial herbs, wildflowers, biological crusts, Alvord and blue oaks, yuccas, saltbush, ephedra, and manzanita.	Maintain, increase, and restore ecologically important plant communities and populations. Examples include native perennial grasslands, alkali sink, saltbrush scrub, upper Sonoran sub-shrub scrub, vernal pools, bulb plants, native grasses, annual and perennial herbs, wildflowers, biological crusts, Alvord and blue oaks, yuccas, saltbush, ephedra, and manzanita.		Maintain, increase, and restore ecologically important plant communities and populations. See No Action Alternative above for objectives specific to Rare Plants, Plant Communities, Viable Populations of Plants and Animals, Native Perennial Grasses and Wildflowers, Habitat Structure Diversity, Avian Species, and Soda Lake.
Map ecologically important plant communities and populations. For communities, follow nomenclature system developed by Sawyer and Keeler-Wolf (1995).			Adopt a standard vegetation classification scheme and develop plant community maps.
Monitor target plant communities and populations. Identify potential and current threats.			Monitor vernal pools, grazed vs. ungrazed areas, riparian areas, non-listed native species, and biotic communities. Evaluate threats.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Prohibit livestock grazing in areas of target plant resources.	Protect from livestock grazing, if necessary.		– Manage (or exclude) livestock grazing to maintain high-priority shrub-scrub stands and enhance all other stands as appropriate. – Identify replicate pastures to be grazed annually to the 500-pounds-per-acre mulch level prescription to evaluate the response of native and nonnative plant species to a consistent livestock grazing treatment.
Support research related to the management of CPNM plant communities and populations.	Support research related to the management of CPNM plant communities and individual plant species. Initiate studies to define important community parameters and design threshold values for management actions. Support research on the biology/ecology of target species.		– Initiate studies of soil-vegetation relationships and historical distributions of plant communities. – Test restoration plots to evaluate techniques for reintroducing native grass species. – Perform long-term studies of the factors influencing community composition, structure, and function. – Determine the function of extraordinary events in plant and animal community dynamics.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
– Do not mow, burn, or reseed to improve native plant habitat. – Use weed control only to eradicate noxious weeds. Allow populations of other non-native plants to respond to natural processes – Allow plant resources to respond to fire with minimal intervention when other Monument objectives are not threatened.	– Manage select native plant resources and habitat as identified in the Conservation Target Table. – Protect from livestock grazing, if necessary. Restrict livestock grazing in saltbush and other shrub communities, unless necessary to meet important biological objectives. Restrict livestock grazing in saltbush recruitment years. – Control nonnative species using IPM principles. – Protect saltbush and other vulnerable shrub communities from fire. – Maintain, restore, and/or increase native grasslands, saltbush and other shrub communities, blue and Alvord oak habitats, vernal pools, and crust communities by active management and restoration.		– Collect and use local materials for plant propagation. – Restore riparian zones – Restore and maintain natural communities. – Design potentially disturbing activities to allow continued expansion of native species.
Nonnative Plants			
Control the spread of noxious weeds (CDFA 2007, 2008), but allow the distribution and population size of other introduced species to be dictated by natural processes	Control the spread of noxious weeds (CDFA 2007, 2008) and other nonnative plants.		Determine location and extent of populations of exotic species and implement a prioritized control strategy
Monitor to detect new populations of noxious weeds.	Monitor to detect new populations of nonnative plants.		Conduct inventories of exotic species.
Eliminate noxious weed founder populations by hand or mechanical methods only.	Aggressively eliminate nonnative founder populations using IPM methods before they can spread.		Determine the most efficient way to control exotic species.
Eradicate target weed species such as yellow star thistle, saltcedar, hoary cress, and Russian knapweed.	– Eradicate target weed species such as yellow star thistle, bull thistle, saltcedar, hoary cress, and Russian knapweed. Control and eradicate tree-of-heaven and, for plantings that have cultural or biological importance, replace with historically acceptable, but non-invasive species such as black walnut. Work on landscape-wide methods for controlling widespread species such as Russian thistle and horehound. – On a landscape level, suppress nonnative annual grasses and herbs. Seed with native species, as applicable.		Aggressively control invasive exotic plants such as tamarisk and yellow starthistle, as well as other exotic species considered a threat to biotic communities. Evaluate the threats and value of nonnative tree species and eradicate when necessary.
Minimize the spread of weeds by livestock and equestrian activities.			

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td colspan="4">Core Area Threatened and Endangered Animals</td></tr>
<tr><td colspan="3">Maintain and enhance viable populations within core areas of giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel. Within the core areas, allow the populations of these target species to naturally fluctuate up and down in terms of number and distribution, but initiate management actions when populations approach target minimums (population threshold values) (see Appendix C, Conservation Target Table).</td><td></td></tr>
<tr><td colspan="3">– Identify and map core areas for giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel. Focus habitat management for these core species on these core areas. Manage core areas so they provide a “safety net” to prevent core area species from disappearing from the Monument.
– Manage core area habitat to promote the more open, desert-like structure favored by the core area species. (Note that Alternative 3 would allow for grazing management in Section 15 allotments under the guidelines found in Appendix S).
– Take measures to reduce mortality of target species, such as reducing vehicle strikes on roads within core areas, removing problem raptor perches, and maintaining escape cover.
– Reestablish populations in core areas, if necessary, through translocation.</td><td>– Decrease human-caused hazards to listed species.
– Design potentially disturbing activities to allow continued expansion of listed species into new areas or their return to historically occupied areas.
– Compile, centralize, and make available historic distribution and abundance data.</td></tr>
<tr><td colspan="3">– Monitor populations to determine trends and further define minimum population threshold values to identify when to take management actions.
– Support research that identifies and defines factors that influence population trends of target species. Support research on the biology/ecology of target species.</td><td rowspan="2">– Encourage further pollen analysis.
– Inventory current distribution and abundance of core species relative to soils, plant associations, and past and present land uses.
– Monitor changes in abundance and distribution.
– Develop field observation forms for use by all cooperators.
– Determine habitat requirements for listed species.</td></tr>
<tr><td>Do not burn, conduct seeding, apply herbicides, or use livestock grazing to manage vegetation to maintain or enhance viable populations in core areas.</td><td colspan="2">Manage vegetation in core areas as identified in the Vegetation Management Toolbox and the Conservation Target Table.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Non-Core Area Threatened and Endangered Animals			
Maintain viable populations of giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel (target species) within the Monument. Allow these species' populations in non-core areas to naturally fluctuate, in terms of number and distribution. Allow target populations to disappear and reappear in non-core portions of the Monument, but take action to prevent a target species from completely disappearing from the Monument.	Maintain viable populations of giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel (target species) within the Monument, with emphasis on the subregions per Table 2.4-3. Target Species and Their Ecological Subregions, Alternative 2. Allow the populations of these target species to naturally fluctuate, in number and distribution, but take action to prevent populations from disappearing from the Monument.	Maintain viable populations of giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel (target species) in areas of suitable habitat per Table 2.4-5. Target Species and Their Ecological Subregions, Alternative 3. Allow the populations of these target species to naturally fluctuate up and down, in terms of number and distribution, but initiate management actions to prevent populations from disappearing from areas of suitable habitat.	
		Identify and map areas of suitable habitat for giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel. Manage areas of suitable habitat the same as core areas to prevent target species from disappearing from areas of suitable habitat.	
Monitor populations or use surrogate values to estimate target population trends and abundance.	Monitor populations to determine trends and further define minimum population threshold values.		

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
– If Monument-wide disappearance threshold is approached, initiate management actions. – Do not apply livestock grazing or fire to manage non-core areas.	If necessary to prevent target species populations from disappearing from the Monument, take action in non-core habitat in addition to taking action in core habitat.	– If populations approach target minimums, initiate management actions. – In those years when target species populations are low and vegetation structure is above optimum, use vegetation management tools.	
	Encourage partnerships with private landowners within habitat areas to manage target populations and habitat in concert with BLM goals.		
Viable Populations of Animals			
Maintain or increase viable populations of special status, declining, or unique species such bats, burrowing owls, fairy shrimp, spadefoot toads, sphinx moths, and Le Conte's thrasher as indicated by subregion in Chapter 2. For giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox, and San Joaquin antelope squirrel, see the alternative-specific non-core area threatened and endangered animals objectives and management actions.			Follow SOPs listed in the 1996 CPNA Management Plan

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Monitor populations of special status, declining or unique species and assess habitat quality and potential or actual threats. Support research and education on special status, declining, or unique species. Manage habitat (vegetation and features) to provide suitable areas for essential activities such as roosting, nesting, aestivation, and reproduction of target species.			– Develop a list of regionally and locally extirpated species and determine priorities for reintroduction. – Develop a reintroduction strategy cooperatively with the CDFG, BLM, TNC, and other experts, including USFWS, as appropriate. – Use scoping process in Section III.a of the CPNA Plan to determine significant impacts. – Monitor changes in abundance and distribution. – Design potentially disturbing activities to allow continued expansion of non-listed native species into new areas or their return to historically occupied areas. – Reintroduce native animals when appropriate.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Native Ungulates			
• Allow natural conditions to determine the quality of pronghorn fawning and foraging habitat in the Caliente Foothills North and Carrizo Plain North subregions and, by extension, pronghorn numbers and distribution on the Monument. Allow population to disappear if dictated by natural conditions. • Allow natural conditions to determine the quality of elk calving and foraging habitat on the Monument and, by extension, elk numbers and distribution. Allow population to disappear if dictated by natural conditions.	• Develop and maintain a CPNM herd of 250 pronghorn. Implement management actions to improve the quality of fawning and foraging habitat. • Provide and improve calving and foraging habitat in the Monument adequate to support a CPNM-based herd of 500 tule elk.	• Provide and improve pronghorn fawning and foraging habitat in the Caliente Foothills North and Carrizo Plain North subregions so that a CPNM-based herd of 250 pronghorn can be achieved within 10 years. • Provide and improve calving and foraging habitat in the Monument adequate to support a CPNM-based herd of 500 tule elk can be achieved within 10 years.	
Do not augment existing populations of pronghorn and tule elk.	Introduce pronghorn and tule elk from other areas if necessary to achieve herd objectives, as long as CPNM habitat is adequate to support target population.	Introduce pronghorn and tule elk from other areas if necessary to achieve the herd objectives within 10 years.	Explore options for increasing herd size and distribution of native pronghorn and elk.
Support CDFG in efforts to monitor CPNM native ungulate populations and in new studies to determine pronghorn and tule elk diet, habitat use, population dynamics, and biology.			
Protect herds by measures to reduce vehicle collisions (for example, with speed limits, public education, and signs; by moving fences back from roads; by mowing road edges).			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Maintain areas of pronghorn and elk habitat solely by natural means. Do not engage in active restoration.	– Maintain and improve pronghorn fawning and foraging habitat in the Caliente Foothills North and Carrizo Plain North subregions. – Maintain and improve elk habitat in the Caliente Foothills North and Carrizo Plain North subregions. – Maintain adequate acreage of tall grassland elk habitat within the Carrizo Plain North subregion and restore native bunchgrass communities in previously cultivated areas. – Restore elk habitat in previously cultivated areas. – Manage habitat to promote native forage species	– Maintain and improve pronghorn habitat in suitable areas in the Monument. – Maintain and improve elk habitat in the Caliente Foothills North and Carrizo Plain North subregions. – Maintain adequate acreage of tall grassland elk habitat in the Carrizo Plain North subregion. – If necessary to meet elk herd objectives and compatible with other resource objectives, restore native grassland in other subregions.	
Eliminate livestock grazing from pastures identified as key pronghorn or elk habitat.	– Allow livestock grazing in key pronghorn habitat and key elk calving and foraging habitat only as identified in the Conservation Target Table. – Include shrubs, tall forbs, and perennial native grasses in restoration seed mixes to provide mosaic of pronghorn and elk forage resources, habitat structure, and adequate fawning cover. – Promote forb production by vegetation treatments.		

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Allow natural water systems to vary with the climate. Do not provide artificial water or supplemental feed.	Maintain critical natural and man-made water sources year-round. Provide supplemental feed only if necessary to maintain a viable population.	– Maintain critical natural and man-made water sources year round. – Establish pronghorn water sources within two miles of key forage and fawning areas in the Caliente Foothills North and Carrizo Plain North subregions. – Provide at least one water source for elk per square mile and construct water sources large enough to support 250 elk, at a maximum of 5 miles apart, in important elk habitat in the Caliente Foothills North and Caliente Mountain South subregions. – Provide supplemental feed for pronghorn if necessary.	
Promote herd travel across the landscape by removing all livestock fences not required to protect sensitive resources such as cultural sites.	– Promote herd travel across the landscape by modifying all fences to allow animal passage underneath. – Realign or remove fencing as identified in the Conservation Target Table.	– Promote herd travel across the landscape by modifying all fences to allow animal passage underneath. – Realign or remove unnecessary fencing. – Reduce number of pastures to reduce number of fences.	

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td colspan="4">Avian Species</td></tr>
<tr><td colspan="3">• Provide suitable habitat for wintering mountain plover in Panorama Hills/Elkhorn Plain, Carrizo Plain Central, and Soda Lake subregions.
• Maintain unobstructed condor habitat in the Caliente Mountain North, Caliente Mountain South, and Temblor Range subregions. Maintain suitable foraging habitat for condors in the Panorama Hills/Elkhorn Plain, Carrizo Plain Central, and Caliente Foothills South subregions.
• Maintain roosting habitat for shorebirds, cranes, long-billed curlews, and waterfowl in the Soda Lake subregion.</td><td rowspan="2">See No Action Alternative above for objectives specific to Rare Plants, Plant Communities, Viable Populations of Plants and Animals, Native Perennial Grasses and Wildflowers, Habitat Structure Diversity, Avian Species, and Soda Lake.

Follow SOPs listed in the 1996 CPNA Management Plan</td></tr>
<tr><td>• Allow natural conditions to determine availability of suitable nesting, roosting, and foraging habitat for raptors, ground-nesting birds, such as grasshopper sparrow and short-eared owl, and migratory birds as indicated by subregion in Chapter 2.
• Allow natural conditions to determine availability of suitable habitat for upland game birds, with an emphasis on natural water sources.</td><td colspan="2">• Maintain or improve nesting, roosting, and foraging habitat for raptors (Caliente Mountain South, Caliente Mountain North subregions) and ground-nesting birds such as grasshopper sparrow and short-eared owl (Caliente Foothills North, Carrizo Plain North, Soda Lake subregions), and migratory birds (Caliente Foothills South, Caliente Foothills North, Carrizo Plain North, Soda Lake subregions). Maintain or improve wintering habitat for raptors.
• Maintain suitable habitat for upland game birds and allow for continuation of existing artificial water sources.</td></tr>
</table>

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td colspan="3">– Conduct annual surveys for mountain plovers.
– Identify and map core areas for mountain plover based on historical use patterns. Focus habitat management for mountain plover to core areas. Manage core areas so that a minimum of one area of suitable habitat is provided within the Monument boundary. Update core area locations based on mountain plover use patterns.
– For mountain plover, apply fall vegetation management when necessary. When possible, overlap mountain plover treatment areas with blunt-nosed leopard lizard treatment areas.
– Restrict or prohibit the placement of new transmission lines, towers, or other potentially disruptive constructs in California condor habitat.
– Support USFWS in implementing condor recovery actions, such as establishing supplemental feeding stations or condor monitoring.
– Conduct annual surveys for long-billed curlews or other species.
– For roosting shorebirds, cranes, curlews, and waterfowl, support research to determine factors affecting roosting and foraging habitat quality and take appropriate management actions if habitat deteriorates.
– Protect roosting habitat at Soda Lake from human disturbance. Design facilities and manage public access to minimize detrimental interaction between roosting birds and the public.</td><td>– Decrease human-caused hazards to listed species.
– Design potentially disturbing activities to allow continued expansion of listed species into new areas or their return to historically occupied areas.
– Compile, centralize, and make available historic distribution and abundance data.
– Monitor changes in abundance and distribution.
– Develop field observation forms for use by all cooperators.
– Determine habitat requirements for listed species.</td></tr>
<tr><td>Conduct annual surveys for wintering raptors and occasional surveys for additional species.</td><td colspan="2">– Conduct annual surveys for wintering raptors and occasional surveys for additional species.
– Conduct inventories to determine raptor nesting sites.</td><td rowspan="4"></td></tr>
<tr><td>Protect nesting raptors at Selby Rocks and Painted Rock from human disturbance.</td><td colspan="2">Protect nesting raptors from human disturbance at Selby Rocks, Painted Rock, and other nesting locations, but allow actions to protect rock art from bird excrement.</td></tr>
<tr><td rowspan="2">Allow nonnative trees and human structures used by birds to be removed.</td><td colspan="2">Allow certain nonnative trees and human structures to remain in place as habitat for birds. Construct new structures or plant additional trees in places such as facilities or campgrounds.</td></tr>
<tr><td>Select tree species native to the area or are non-invasive and historically appropriate.</td><td>Support the planting of food crops for sandhill cranes on lands outside the Monument on adjacent lands or within the Monument on previously cultivated areas near Soda Lake, when compatible with other biological and cultural objectives.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
	Support research to understand regional importance as a nesting and wintering site for raptors and ground-nesting birds.		
Allow vegetation to respond only to natural forces with no vegetation management.	Apply a variety of treatments to create a mosaic of habitat types and structures to provide for a variety of species as warranted.		
Do not apply livestock grazing and fire to manage bird habitats.	Livestock grazing within the Carrizo Plain North subregion will be done in a manner that promotes shrubs, tall forbs, and perennial native grasses as identified in the Conservation Target Table.		
	– Discourage use of polypropylene twine at gates and other facilities in the Monument to prevent its use as a nesting material and potential entanglement of birds. Remove and replace existing polypropylene twine at gates and facilities. – Take measures to minimize bird mortalities caused by electrocution along power lines.		
Remove artificial water developments used by upland game birds (such as guzzlers) as they become non-functional.	Allow maintenance and replacement of existing artificial water developments used by upland game birds, such as guzzlers. New water developments may be allowed if proposed by CDFG and compatible with biological, cultural, and wilderness objectives.		
Nonnative Animals and Captive-Held Native Animals			
Control the spread of nonnative animals. Minimize disease transmission, harassment, and competition from nonnative animals and native animals that have been held in captivity.			
Control and eliminate, when possible, nonnative animals such as feral pigs and honey bees.	Control and eliminate, when possible, nonnative animals such as feral pigs and honey bees using a variety of methods such as hunting, fencing, and trapping of pigs or hive removal, entombment and poison bait stations for bees.	Control and eliminate, when possible, nonnative animals such as feral pigs and honey bees.	Evaluate the need to control exotic animal species such as red fox, wild pig, and cowbirds.

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td>Prohibit the release of nonnative animals.</td><td>Prohibit the release of nonnative animals except for the use of approved biocontrol agents or the authorized use of livestock.</td><td>Prohibit the release of nonnative animals except for the use of approved biocontrol agents, the authorized use of livestock, or in accordance with a CDFG-approved permit(s).</td><td rowspan="3"></td></tr>
<tr><td>Prohibit the release of native animals that have been held in captivity unless the release is required to meet the Monument’s objectives, such as augmentation or reestablishment of an endangered or threatened species like the Kern primrose sphinx moth or the giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox or San Joaquin antelope squirrel in core areas.</td><td colspan="2">Prohibit the release of native animals that have been held in captivity unless the release is required to meet Monument objectives, such as augmentation or reestablishment of an endangered or threatened species like the Kern primrose sphinx moth or the giant kangaroo rat, blunt-nosed leopard lizard, San Joaquin kit fox or San Joaquin antelope squirrel in core areas, or the release of pronghorn or elk if necessary to meet herd objectives.</td></tr>
<tr><td colspan="3">Take protective measures if pets from visitors or private lands are causing wildlife depredation or other ecological damage such as requiring pets to be leashed and under control at all times, removal of fecal material from pets or contacting owners if pets are free-roaming on the Monument.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Habitat Structure Diversity			
Maintain or increase the diversity of habitat in terms of structure, composition, and patchiness.			Follow SOPs listed in the 1996 CPNA Management Plan
Monitor and map the distribution, amount, and structure of shrub and woodland communities; the structure of the herbaceous understory; and the general species composition of the plant communities. Provide a variety and mosaic of vegetative assemblages, successional stages, habitats, and structure. Use tools from Vegetation Management Toolbox. Initially focus on lands previously degraded by dryland farming or overgrazing.			– Investigation past vegetative community species composition. – Encourage further pollen analysis to determine this technique's efficacy in describing current vegetative community species composition. – Initiate long-term studies of the factors influencing community composition, structure, and function. – Identify shrub-scrub stands to be maintained or enhanced – Manage livestock grazing to maintain high priority shrub-scrub stands and enhance all other stands as appropriate.
Linkage			
• Maintain the linkage of natural lands in the CPNM to the San Joaquin Valley by preserving the intact nature of the Temblor Range to maintain genetic and population linkages for San Joaquin kit fox, giant kangaroo rat, San Joaquin antelope squirrel, and other species.			
– Maintain suitable habitat in the Temblor Range subregion. Manage public use to prevent habitat degradation and fragmentation. – Identify and protect important linking habitat through acquisition or other methods.			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Riparian Areas			
Restore all riparian areas, seeps, and springs to proper functioning condition (PFC) or better (Caliente Mountain South, Caliente Mountain North, Temblor Range, Caliente Foothills South, Caliente Foothills North subregions).			Maintain riparian zones in proper functioning condition to allow for the maintenance and development of natural riparian plant communities and basic riparian ecological functions.
– Inventory/monitor wetland, riparian, and spring sites. – Continue to monitor and remove tamarisk, bull thistle, and other noxious weeds from wetland areas. – Restore degraded riparian areas using a variety of methods. – Identify and protect riparian areas that may appear only in very wet years. – Fence/protect wetland, riparian, and spring areas as necessary – Take measures to limit the deleterious actions of wild pigs, such as monitoring, fencing, and hunting,			– Complete spring and water source inventory. – Monitor springs, seeps, and intermittent stream riparian zones to evaluate management effectiveness. – Maintain, protect, improve, and/or restore riparian zones and drainages. – Fence water sources, wetlands, and riparian areas affected by livestock and wild pigs.
Soda Lake			
Maintain the ecological processes and hydrologic vitality (quality, quantity, and flow patterns) of Soda Lake, its playas, and associated swale system.			Maintain hydrologic processes and function of Soda Lake
– Monitor water flow patterns, potential threats to water quality, and general ecosystem health – Identify adjacent lands important in maintaining water quality. Coordinate with adjacent landowners to eliminate or minimize contamination. – Eliminate salt cedar and all other problematic nonnative species. – Design any new trails, pull-outs, parking areas, and other facilities to minimize disruption of ecological processes and hydrologic vitality.			– Protect Soda Lake. – Maintain and enhance water quality and quantity, hydrologic processes, ecosystem health, and plant and wildlife communities – Develop a model of the CPNM groundwater system and interaction with surface waters, watershed, and Soda Lake.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Vernal Pools and Sag Ponds			
Maintain the ecological processes and hydrologic vitality of the Monument's vernal pools and sag ponds (primarily Caliente Foothills South and Soda Lake subregions).			Sustain vernal pool communities.
– Identify and map vernal pool sites – Monitor water chemistry, species composition, and other important ecological factors important in maintaining pool ecosystems and take action to remedy negative changes. – Maintain the ecological processes and hydrologic vitality of vernal pools. – Protect vernal pools and sag ponds. Maintain current conditions while improving knowledge base and modify management to reflect new information. – Determine effects of livestock grazing on vernal pool habitats and in maintaining characteristics necessary for the health and viability of fairy shrimp and other vernal pool species. – Eliminate nonnative species from vernal pools and surrounding areas.			– Monitor vernal pools. – Sustain the integrity of natural vernal pool communities. – Implement livestock grazing management (or exclusion) that will sustain vernal pool communities. – Develop an understanding of the effects of livestock grazing on current biotic communities and plant and animal species.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Research and Inventory			
• Improve knowledge of the species present on the Monument and understanding of the natural and ecological processes that influence local ecosystems.			
Inventory taxa that are not well studied or understood, such as insects, other invertebrates, fungi, lichens, and bryophytes. Continue updating existing inventories (plants, mammals, birds, other species). Support inventories, monitoring, and research on factors that influence species population trends. Support other research within the Monument on the biology of CPNM species. Establish and maintain non-managed areas to compare the effects of unmanipulated natural processes with changes influenced by agency management actions.			– Inventory all species in CPNM. – Inventory exotic species and determine most efficient controls. – Design studies to assess the effects of the proposed livestock grazing program on plants and animals. – Monitor changes in abundance and distribution patterns at known locations of non-listed native species. – Map all major perturbations of vegetative communities. – Determine the function of extraordinary events in plant and animal community dynamics. – Pursue stable funding source to address questions regarding the effectiveness of livestock grazing in meeting goals.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Fire			
Maintain the natural role of fire in the landscape where feasible.	Maintain the natural role of fire in the landscape where feasible.		• Mimic the range of natural processes and disturbances. • Develop a fire history, and understanding of the effects of fire and suppression on current biotic communities and species of plants and animals. • Pre-suppression and suppression activities will be implemented to reduce the adverse impacts of fire management, and coordinate wildfire suppression and prescribed burning activities.
Manage prescribed fire and wildfire in the Caliente Mountain North subregion to mimic the natural return interval.			– Conduct prescribed burns to study fire's effects on plants and animals (on about 30,000 acres with fireline construction on 10 acres). – Allow wildfires to burn in designated areas to re-establish natural fire intervals and minimize negative impacts of fire suppression.
	Use fire as a habitat management tool to promote native species.		Implement the livestock grazing, fire management, and research actions described in the Habitat Management section of the CPNA plan.
Increase understanding of native people's use of fire to aid in current management applications.	Increase understanding of native people's historic use of fire and historic fire return intervals to aid in current management applications.		Determine the extent of fire use by Native Americans.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
			– Develop a comprehensive fire management plan. – Determine the historical extent, intensity, interval season, and duration of fires. – Study the effects of various suppression and prescribed burn pretreatment methods (fire line construction) on plants and animals. – Minimize negative impacts of pre-suppression activities on resources. – Establish post-fire monitoring sites on areas burned by wildfires and adjacent unburned areas.
Protected Land			
Increase the amount of protected land for rare species and important ecological habitats.	Direct acquisition efforts to acquire lands with important biological resources, especially those that are poorly represented in public ownership.		Acquire, from willing sellers, all remaining private lands within the boundaries of the CPNM.
Acquire lands or interest as parcels become available.	Identify target inholdings and encourage sale or transference of target properties: – Primary focus would be to acquire property that supports species that are poorly represented on public lands. – Secondary focus would include properties with important ecological characteristics that are potential core areas for the San Joaquin suite of rare species or that support other important CPNM species.		– Acquire lands based on availability, biological or cultural values, and management needs. – Retain all acquired lands and original public land within the CPNM, but allow exchange of parcels between BLM, TNC, and CDFG. – Retain all original mineral rights on split estate lands.
	Target inholdings that are important in maintaining the linkage between the CPNM and the San Joaquin Valley.		
	Develop and maintain a GIS database showing the location of target resources to facilitate acquisition efforts.		

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
	Acquire lands by donation, compensation, exchange, or purchase. Lands will be acquired based on availability, biological or cultural values, and management needs. Target other inholdings that may have management needs or risk of development or occupancy.		Establish agreements or acquire easements to protect resources with owners of parcels that cannot be acquired in fee.
			Cooperate with San Luis Obispo County to address private land development issues within the CPNM.
2.5 Fire and Fuels Management			
Determine the AMR to fire based on the likely consequences to firefighter and public safety and welfare, natural and cultural resources, and values to be protected. Determine post-fire effects of all wildland fires and determine needed actions.			Current direction for fire management is included in the CPNM Plan. • Develop a fire history for the CPNM, and an understanding of the effects of fire and suppression on current biotic communities and species of plants and animals. Coordinate wildfire suppression and prescribed burning activities. • Pre-suppression and suppression activities will be implemented to reduce the adverse impacts of fire management. • Increase the availability and dependability of water sources needed for wildfire suppression and prescribed burning.
Utilize a hands-off / natural processes approach to fire management in the CPNM. Manage naturally occurring fires for resource benefit, where appropriate. • Fire control objectives: Target wildfire acres burned per decade: 15,000 acres. • Target individual wildland fire size: 1,000 acres or less90 percent of the time.	Follow current wildland fire objectives in the fire management plan: • Target wildfire acres burned per decade: 10,000 acres. • Target individual wildland fire size: 100 acres or less 80 percent of the time. • Fires on the valley floor burning in grassland areas away from sensitive cultural sites and fire-intolerant shrub areas may be managed using a confine strategy, burning to the nearest roads.	Actively suppress wildfires and rely on prescribed fire to return fire to the ecosystem: • Target wildfire acres burned per decade: 5,000 acres. • Target individual wildland fire size: 100 acres 90 percent of the time.	

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
– Fight fire safely by following Interagency Standards for Fire and Fire Aviation Operations. – Coordinate closely with interagency fire suppression partners to ensure that resource protection strategies are understood and implemented. Continue to include a modified suppression plan in the Central Coast Operating Plan to outline fire suppression guidelines to fire suppression partners. – Utilize existing natural and human-made barriers where feasible during wildland fire suppression. – Utilize MIST in the Caliente Mountain WSA, and also within the remainder of the primitive recreation management zones to the extent possible. – Limit fire retardant drops on rock outcrops. – Avoid aerial or ground application of fire chemicals within 300 feet of waterways. – Minimize the loss of fire-intolerant saltbush vegetation. – Request a resource advisor familiar with area management objectives and sensitive resource values. Ensure BLM fire suppression personnel are also aware of special resource concerns in CPNM. – Park vehicles and set up suppression support facilities in areas that have already been disturbed or locate outside the CPNM. – Increase understanding of native people's historic use of fire and historic fire return intervals. – Assess all wildland fires for emergency stabilization and rehabilitation needs. – Complete emergency stabilization and rehabilitation in a timely and cost-efficient manner.			– Develop a comprehensive fire management plan. – Determine fire use by Native Americans and historical fire extent, intensity, interval season, and duration. – Minimize impacts from pre-suppression activities. – Select appropriate water holding tanks and fit valves compatible with firefighting equipment. – Monitor burned areas and adjacent unburned areas for ecological effects. – Assess wildlife and vegetation effects of various suppression and prescribed burn pre-treatment methods.
Allow wildland fire use within the Caliente Mountain WSA.	No areas identified for wildland fire use within the CPNM.	No areas identified for wildland fire use within the CPNM.	Allow wildfires to burn in designated areas.
– Actively suppress fires that threaten life or private property. – Consider managing natural ignitions within the Caliente Mountain WSA as wildland fire use. – In other areas, apply a confine strategy.	– Actively suppress fires that threaten life, facilities, or private property. – Actively suppress fires that threaten fire sensitive natural or cultural resources, such as saltbush or other vulnerable shrub communities, Alvord and blue oak stands, and National Register properties. – In other areas, apply a confine strategy.	Actively suppress all fires within the CPNM.	

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Utilize MIST, to the extent possible, in the remaining primitive recreation management zones (65,218 acres).	Utilize MIST, to the extent possible in the remaining primitive recreation management zones (36,480 acres).		
Incident commander retains the authority during initial attack to undertake appropriate actions, while considering restrictions to protect sensitive natural and cultural resources.			
Limit mechanical fuel reduction to meeting state requirements (currently 30 feet of cleared fuel directly adjacent to structure and reduced fuel within 100 feet).	– Reduce fuels adjacent to structures and other improvements, as well as along major travel corridors. – Treat up to 4,000 acres per decade with non-fire fuels treatment.		– Post fire prevention signs. – Remove dry vegetation for at least 30 feet around structures. – Mow vegetation from the roadway and shoulders. – Prepare an activity fire plan for any procedure that could lead to fire ignition, such as metal cutting and welding, mowing, and scraping.
Utilize mechanical equipment, such as dozers, only when necessary to protect human life or property.	– Active suppression could include aerial attack, mobile attack, handline construction, or dozerline construction (outside of sensitive cultural site areas). – Utilize mobile attack in preference to more disturbing methods such as dozerline construction.	Utilize aerial attack, mobile attack, handline construction, or dozerline construction.	
Do not conduct any prescribed burning in the CPNM.	Utilize prescribed fire on up to 10,000 acres per decade to contribute to native species restoration goals and noxious weed control, return fire to its place in the ecosystem, and meet fuel reduction needs.	Utilize prescribed fire on up to 15,000 acres per decade to contribute to native species restoration goals and noxious weed control, return fire to its place in the ecosystem, and meet fuel reduction needs.	Conduct prescribed burns, to study fire's effects on plant and animal communities, on 30,000 acres with fire line construction of 10 acres during the life of this plan.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
2.6 Air Quality			
Improve overall air quality by reducing fugitive dust emissions on roads throughout the Monument.	Improve overall air quality by reducing fugitive dust and particulate matter emissions throughout the Monument.	Improve overall air quality by reducing fugitive dust emissions on roads throughout the Monument.	Comply with local, state, and federal air quality and visibility requirements and encourage the reduction of emissions while conducting prescribed fires. Minimize dust generated from roads and other land management activities.
Maintain and/or improve air quality to meet all local, state, and federal air quality standards.			
– Comply with all local, state, and federal air quality regulations. – Use alternative energy sources where feasible. – Minimize dust emissions on roads and while implementing earth-disturbing activities. – Use accepted best management practices to minimize the exposure of employees, visitors, and area residents to the spores that may result in valley fever.			– Comply with local, state, and federal PM_{10} dust control rules. – Use alternative energy when feasible and practice energy conservation. – Use best available methods to reduce emissions and protect human health and safety.
Use an aggregate, gravel base, or chemical binder/dust suppressant to cover main access roads throughout the Monument.	– Use an aggregate, gravel base, or chemical binder/dust suppressant to cover main BLM roads, focusing on those accessing or passing high-use recreation sites, other areas with high public or resident exposure, and near rock art sites. – Coordinate with county to reduce dust emissions on county roads.	– Pave major travel routes into and out of the CPNM. – Gravel key secondary routes and roads.	Use the best available methods to reduce dust from existing roads, construction sites, and land management practices. Consult with specialists and experts as appropriate.
– Close and reclaim redundant and unnecessary roads. – Seasonally close to public roads without dust suppression additives.	Close/reclaim all unnecessary routes and roads that are not needed for administrative/public use(s).		

<table>
<tr><th>Alternative 1</th><th colspan="2">Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td></td><td colspan="2">Install solar panels where feasible to replace generators, or use windmills at wells. Rehabilitate existing windmills.</td><td></td></tr>
<tr><td></td><td colspan="3">Avoid prescribed fire when weather conditions are likely to result in smoke entering adjacent areas that exceed current air pollution standards.</td></tr>
<tr><td></td><td colspan="3">Avoid burning during high-visitor-use periods.</td></tr>
<tr><td colspan="5">2.7 Soils</td></tr>
<tr><td colspan="3">Maintain soil resources in proper functioning condition (including biological function).
Conserve and restore areas of biological soil crusts.
Manage land uses such that erosion and sedimentation rates are appropriate to natural processes, landscapes returning to natural processes, or landscapes under active restoration.</td><td colspan="2">Evaluate erosion problems, identify corrective actions needed, and monitor soil resources throughout the CPNM.</td></tr>
<tr><td colspan="3">– Identify and evaluate erosion problems and implement corrective actions.
– Limit fugitive dust pollution by reducing disturbance to soils.
– Incorporate best management practices to minimize erosion/sedimentation and conserve biological soil crusts.
– Develop and implement best management practices to reduce the threat of exposure of area residents, visitors, and employees to valley fever.
– Assess/inventory soils in Monument for proper functioning condition (Rangeland Health Standards).</td><td colspan="2" rowspan="3">– Develop strategies to improve conditions on soils that are eroding.
– Acquire a digitized version of the Carrizo Plain Soil Survey.
– Manage livestock grazing in a manner that does not create excessive water or wind erosion.</td></tr>
<tr><td>Gain a better understanding of the processes that may be affecting area soils to allow for improved management and conservation.</td><td>Gain a better understanding of the processes that may be affecting Monument soils. Take an aggressive approach to help the soils achieve proper functioning condition and educate the users about soil resources and sensitivity.</td><td>Gain a better understanding of the processes that may be affecting area soils and implement intensive management to manage/restore soils to perform at proper functioning condition.</td></tr>
<tr><td></td><td colspan="2">Develop strategies to improve conditions on soils that are eroding. Priority will be given to human-caused problems that impact natural community processes or areas inhabited by sensitive species.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
	Consider seasonal closures to areas of sensitive soils. Consider seasonal closures on roads where excessive ruts occur.	– Implement seasonal closures to areas of sensitive soils. – Implement seasonal closures on all roads when ruts are two inches or greater, or conditions otherwise will result in road damage or erosion/sedimentation issues. – Remediate erosion problems through eliminating causes and complete restoration. – Provide educational materials to the Goodwin Education Center and/or kiosks on proper use etiquette to protection soils.	

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
2.8 Water Resources			
• Maintain and enhance water quality: hydrologic processes, ecosystem, and plant and wildlife communities (see Biological Resources – Goals, Objectives, and Management Actions Common to All Action Alternatives, Section 2.4.2.2 Objective and Management Actions, Soda Lake). • Coordinate with appropriate state and federal water quality agencies to ensure that the quality of water entering the Monument is not compromised. • Ensure riparian zones, streams, and floodplains are in proper functioning condition (see see Biological Resources – Goals, Objectives, and Management Actions Common to All Action Alternatives, Section 2.4.2.2 Objective and Management Actions, Riparian Areas). • Coordinate with state and federal agencies to achieve compliance with the *Clean Water Act* or other applicable regulatory guidance. • Manage upland areas to maintain or improve hydrologic function and minimize adverse downslope impacts. • Establish a baseline database of existing water wells, groundwater level trends, and groundwater quality for the Carrizo Plain Groundwater Basin within the National Monument. • Develop model of CPNM groundwater system and interaction with surface waters, watershed, and Soda Lake.			Protect or enhance habitat condition, water quality, plant community composition, and wildlife use for all springs, water sources, and drainages.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
– Inventory/monitor wetland, riparian, and spring sites. – Fence/protect wetland, riparian, and spring areas as necessary. – Provide water for livestock, wildlife, and administrative use from wells rather than from natural springs and/or surface waters if these uses are detrimental to the spring(s) and/or surface waters. – Continue to monitor and remove tamarisk, bull thistle, and other noxious weeds from wetland areas. – Use native plants in wetland areas to restore degraded springs or streams. – Inventory, characterize, and map all existing water wells within the CPNM – Determine if any existing wells in the CPNM are suitable for water level and water quality monitoring. – Drill one or two new groundwater monitoring wells at selected locations within the Carrizo Plain Groundwater Basin in the CPNM, focusing in areas that may be potentially impacted by proposed and future offsite land uses. – Monitor the water levels and water quality in new monitoring wells and/or existing wells on a quarterly basis for first 2 years, and annually thereafter. – Coordinate with other public agencies on monitoring and research relative to groundwater in the CPNM. – Use groundwater and surface water data to develop a hydrologic model for the CPNM.			– Complete spring and water source inventory by plan year three. – Monitor springs and seeps for trends of plant community composition, water flows, and water quality. – Evaluate water source inventory and monitoring information to determine needs for habitat protection or habitat improvement. Protect sensitive areas through fencing, water distribution to adjacent uplands, and seeding or transplants. – Design spring improvements to maintain or improve wetland conditions. – File for appropriative water rights. – Design/maintain roads and facilities to allow sheet and channel runoff. – Protect active washes and alluvial fans from channelization.
2.9 Wild and Scenic Rivers			
Evaluate and provide interim protection for all eligible and suitable wild and scenic river segments until Congress makes a final determination regarding their designation under the *Wild and Scenic Rivers Act*.			
– Carry forward the non-eligible recommendation for Soda Lake from the Caliente RMP. – Abbot Canyon, Wallace Creek, and the Cuyama River were found to be not eligible for designation under the *Wild and Scenic Rivers Act*.			– Carry forward the non-eligible recommendation for Soda Lake from the Caliente RMP. – No analysis of the eligibility and suitability for other watersheds within the monument.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
2.10 Geology and Paleontology			
Protect and preserve significant vertebrate or invertebrate fossils and geological landforms. Encourage educational interpretation and research project opportunities with the scientific community and educational partnerships. Establish baseline inventory of paleontological resources in the Monument.			Continue research into the geology and paleontology of the CPNM.
– Identify sensitive paleontological zones and fossil locations. – Protect sensitive paleontological and geological formations through law enforcement patrol. – Identify baseline data and monitor for disturbances of geological landforms such as the San Andreas Fault, Soda Lake, and the clay dunes at Soda Lake, and implement corrective action. – Where resource integrity would not be compromised, interpret fossils, geological landforms, features, and formations as compatible with appropriate recreation management zone. – Encourage valid research and volunteer partnership opportunities associated with the San Andreas Fault, Soda Lake, sag ponds, clay dunes, and other areas of geological interest. – Encourage valid research and volunteer partnership opportunities to locate fossil, collect specimens, interpret finds, evaluate their significance, and preserve representative fossil formations and localities. – Identify and compile existing geological and paleontological research maps and professional reports pertinent to the Monument. Maintain baseline data in hard copy and electronic (GIS) format. – Create geological maps depicting sites of geological and paleontological significance.			
Public Education and Interpretation			
Enhance indoor displays and minimize field visitation to geologic and fossil formations to ensure long-term preservation.	Focus public education and interpretation of geological and paleontological resources at field locations.		
There would be no additional on-site public interpretive displays. Sensitive location information on paleontological resources would be protected.	Focus interpretative information pertinent to geologic and paleontologic resources at existing and additional field locations in the Monument where compatible with specific recreation management zones and VRM class.		Display resource information at on-site or adjacent locations. Provide brochures for guided and self-guided trips.
Public visitation would be allowed but not encouraged at geological and fossil field locations other than those already identified.	Continue existing guided and self-guided public tours to points of geological interest such as Wallace Creek. Make interpretive information available.		

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Maintain and enhance the Goodwin Education Center or some other public facility with displays pertinent to paleontological and geological formations. The center would continue to provide public displays and hands-on educational exhibits.			
Potentially develop interpretive program at other facilities and limited field locations.	Assess the feasibility of expanding the Wallace Creek interpretive program by providing geological walk-through-time displays adjacent to the trail.		
Paleontological Resource Scientific Research			
Pursue research of paleontological resources locations using minimal field tools.	Pursue field research of paleontological resources using a combination of hand tools and mechanized equipment that would balance protection of resources and research.		Compile existing geologic research.
Encourage research meeting BLM permit standards and allow only minimal tools to limit ground disturbance.	– Hand tools and mechanized equipment may be authorized. Stabilize exposed fossil formations or localities where feasible. Research methods would have to meet paleontological permit standards. – Field research would be compatible with VRM class and not compromise the overall physical integrity of the fossil bed or locality.		– Require BLM authorization for field research. – Limited field monitoring and patrol would continue at the current levels.
	Recover fossils at risk of loss and place significant finds in a repository meeting federal standards, with selected specimens on exhibit in the Monument and for public education.		
Pursue field research of paleontological resources through cooperative agreements and contracts or permits to identify fossil formations and localities, and assess condition of paleontological resources threatened by soil erosion or human-caused disturbances.			Field research would be available under a use permit and contract or cooperative agreement.
Identify sensitive paleontological zones in the Monument and expand baseline inventory in GIS files or hard copy format.			Compile and archive baseline fossil formation maps.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
San Andreas Fault / Soda Lake / Geological Formation Research			
Limit field research disturbance of significant geological resources by using minimal tools.	Pursue field research of geological resources using a combination of hand tools and mechanized equipment.		Follow specific objectives listed in the 1996 CPNA Management Plan.
– Encourage research meeting BLM permit standards and allow only minimal tools to limit ground disturbance. – Field research would be compatible with VRM class and not compromise the overall physical integrity of the fossil bed or locality.	Consider more intensive research to advance public education and scientific understanding. Allow a reasonable amount of ground disturbance that would not compromise the physical integrity of the formation and would be compatible with the appropriate VRM class.		
Formal field research would continue in areas such as the San Andreas Fault, Soda Lake, sag ponds, clay dunes, and volcanic formations.			
Research data collection methods could include surface investigations, coring samples at Soda Lake, and geological, mineralogical, or seismic studies at the fault zone using hand tools.	Research data collection methods could include surface investigations, coring samples at Soda Lake, and geological, mineralogical, or seismic studies at the fault zone using a combination of hand tools and mechanized equipment.		Research data collection methods could include surface investigations, coring samples at Soda Lake, and geological, mineralogical, or seismic studies using mechanized equipment on the fault zone.
Document findings from geological research in a professional report and provide to BLM and its partners. Sensitive or unique geological information identified through research would be archived in GIS or hard copy format for reference.			Baseline data from research would be maintained by the researcher and may be available in web links or professional papers. Copies of proposals and research findings would be shared with the partners and incorporated into the BLM library.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
2.11 Cultural Resources			
• Protect and preserve significant cultural resources from natural and human-caused disturbances. • Maintain and enhance open dialogue with Native Americans to participate in planning and consultation. • Ensure opportunities for Native American traditional plant gathering, cultural activities, and ceremonial rites. • Provide for the removal of invasive nonnative plants while retaining the integrity of historic property landscapes. • Encourage partnerships, valid research, interpretation, and educational opportunities. • Place priority on acquisition of significant cultural resources in the CPNM as non-federal land become available.			Cultural Resources Management Objectives: • Monitor impacts to cultural resources and the effectiveness of protections strategies. • Stabilize, reconstruct, maintain, and protect significant cultural properties. • Solicit and encourage partnerships, valid research, interpretation, and

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
– Revise / update fire maps of sensitive cultural resource zones. – Eighty-nine properties are allocated to the Conservation for Future Use category (NRHP-listed properties in Rock Art Historic District and nominated properties in National Historic Landmark). Painted Rock is allocated to Traditional and Public Use categories. Traver Ranch and KCL Ranch are allocated to the Public Use category. El Saucito Ranch, Washburn Ranch, and Selby Cow Camp are allocated to the Public Use and Scientific Use categories. – Evaluate sites for NRHP eligibility and assign the appropriate management use categories. – Develop plan to restore, stabilize, or reconstruct NRHP-eligible and selected non-eligible historic sites. – Monitor, identify, and record cultural resource sites potentially threatened by human activity and natural forces. Implement corrective actions. – Develop procedural agreements with Native Americans regarding consultation and management. – Continue to work with the Native American Advisory Committee under existing charter agreement. – Develop protocol agreement with Native Americans on traditional practices, implement this agreement, and consider opportunities to improve vigor and distribution of native plants used in traditional practices. – As wildlife herds increase, work with Native Americans & CDFG to allow for the use of native animals. – Implement intensive and mixed sample inventory strategies to establish a predictive model revealing the low-, moderate-, or high-probability zones for prehistoric and historic resources in the CPNM. – Compile and transcribe oral histories from willing ranchers, ethnic groups, Native Americans, & others. – Conduct research related to historic, ethnographic, and prehistoric resources. – Pursue acquisition or cooperative management partnership with the state property located atop Caliente Mountain Peak, including the Caliente Mountain World War II lookout tower. – Pursue acquisition of NRHP-eligible cultural properties in the Monument on private land should the landowner be willing to transfer the parcel to federal ownership. – Consider eradication of invasive nonnative plants at specific prehistoric site such as Painted Rock and replace with a native plant. – Eradicate invasive nonnative plants on historic properties and replace with appropriate native plants.			education efforts associated with cultural resources. Native American Uses Objectives: • Identify and establish communication with Native American groups and individuals traditional and cultural ties to the Carrizo. • Preserve the opportunity for Native Americas to pursue traditional beliefs.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Painted Rock			
Enhance conservation efforts for long-term preservation.	Protect Painted Rock while allowing guided groups and self-guided visitor access.	Protect Painted Rock while allowing guided group visitor access.	
Painted Rock would be closed to public access.	– Open to guided tours from March 1 through July 15, not to exceed 25 visitors at a time (as a target) in the rock alcove. – Permit required for self-guided visitor access from July 16 to end of February. – Special Recreation Use Permit is required for groups of 20 or more individuals. – Use monitoring / law enforcement to ensure permit compliance; program could be modified or discontinued. – Night public access closure year-round from dusk to dawn.	– Open to guided tours only. Tours would be conducted on a routine schedule and increased above current levels. Target not more than 25 visitors at a time in the rock alcove. – Night public access closure would be extended year-round from dusk to dawn.	– Open to guided tours only from March 1 through July 15, not to exceed 25 visitors at a time in the rock alcove. – Open to self-guided access from July 16 to the end of February. – A Special Recreation Use Permit would be required for self-guided groups of 20 or more visitors. – Night access closure is effective from March 1 through July 15.
	Manage as point of public interest to a level that does not compromise National Register & traditional values.		
Native Americans would be allowed access to the site for traditional uses through advance coordination with BLM.			
The road to the Painted Rock parking area and trail to Painted Rock site subject to temporary or emergency closure to Native American access due to muddy road conditions and during sensitive periods of bird nesting.	The road to the parking area and archaeological site would be subject to temporary or emergency closure without public notice for reasons such as muddy road conditions, during sensitive periods of bird nesting, and to protect resources and cultural values.		

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Closure would continue in the Painted Rock pasture to livestock grazing, horses, dogs, non-motorized bikes, cache-type activities, and discharge of firearms.	The Rock Art Historic District component from Painted Rock to Selby Rocks and the adjacent area would be closed to livestock grazing, horses, dogs, non-motorized bikes (excluding Painted Rock parking area), and cache-type activities, excluding the Selby Road and Caliente Mountain Road. The discharge of firearms would be prohibited for the entire exclusion area.	Closure would continue in the Painted Rock Pasture to livestock grazing, horses, dogs, non-motorized bikes, cache-type activities, and the discharge of firearms.	
	Prohibit campfires within the Painted Rock exclusion zone but allow approved Native American ceremonial fire use.		
	No climbing on the rock, direct contact (touching) or defacement of rock art, and collecting or displacing of artifacts, ecofacts, or features. Researchers could be excluded from some of these conditions with BLM permit or approval, pursuant to Federal regulations.		
Prioritize patrol, monitoring, and surveillance actions.			
Conduct archaeological condition assessment and conservation treatment as necessary to preserve rock art paintings and other components of Painted Rock.	Maintain and realign Painted Rock Exclusion Zone fences to encompass the National Register District component between Painted Rock and Selby Cow Camp. Remove fences in a state of poor repair if no longer needed, subsequent to NHPA Section 106 compliance assessment.	Maintain and realign Painted Rock Pasture fence to encompass the National Register District component between Painted Rock and Selby Cow Camp. Remove fences in a state of poor repair if no longer needed, subsequent to recordation and NHPA Section 106 compliance assessment.	
At-Risk Archaeological Resources			
Enhance conservation efforts for long term preservation.	Restrict access and protect sites that are at high risk from human-caused impacts.		
Monitor/identify/record cultural sites at risk from human activity & natural forces. Implement corrective actions.			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
NRHP-eligible property at risk would be subject to emergency closure or access restrictions.			
The archaeological site C06-1 located on the basalt hill on KCL Ranch would be closed to public access. Native American pedestrian access would be allowed. Install low profile closure signs	A BLM permit would be required for self-guided pedestrian access to archaeological site C06-1. A Special Recreation Use Permit would be required for groups of 20 or more individuals. Native American pedestrian access would be allowed.		Archaeological site C06-1 would remain open to public access.
Prehistoric rock art site CA-SLO-100 located on the Washburn Ranch would remain closed to public access.			
All public lands within ¼ mile of Sulphur Springs will remain closed to public access.			
Patrol and monitor sites C06-1 and CA-SLO-100 for protection and to ensure compliance. Take corrective action such as fencing site C06-1 to deter access if public continues to access site.			Patrol and monitor sites C06-1 and CA-SLO-100 for protection and compliance.
Rock Art Protection			
Allow rock art to deteriorate as long as it is a natural process.	Enhance conservation efforts for long term preservation of rock art sites affected by natural agents and inadvertent human impacts to preserve cultural values and provide public enrichment for future generations.		
– Repair, maintain, and realign the fences encircling the Rock Art Historic District in the vicinity of Painted Rock and Selby Rocks. Remove unneeded fences in a state of poor repair, subsequent to NHPA Section 106 recordation and assessment. – Prohibit still and video photography for commercial purposes of the pictograph images at Painted Rock and other rock art sites. Issue permits for photography related to activities of accredited scientific, academic, or research institutions. – Assess, conserve, document, or otherwise preserve rock art sites threatened by natural conditions and human-caused impacts. – Assess grazing impacts to the Saucito Rocks, Sulphur Springs, and Abbott Canyon components of the Rock Art Historic District. As needed, exclude livestock from all or parts of the surrounding pastures. – Identify and assess impacts to NRHP properties located within or contiguous to existing public or administrative roads to Saucito Rocks, Sulphur Spring, and Abbott Canyon components of the Rock Art Historic District. Employ realignment, closure of road segments, road capping, or other form of preservation. – Conduct law enforcement patrols to deter unauthorized OHV use and enforce speed limits.			

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td>– Stabilize sites where feasible without treatment intervention to rock art elements.
– No intervention to reduce or eliminate natural deterioration of rock art.</td><td colspan="2">– Develop and implement a rock art preservation plan including protection, conservation, and treatment measures to address natural deterioration.
– Implement measures such as dust abatement on roads and trails; installing physical barriers, boardwalks, and interpretive panels; or other preservation measures to manage public access to sites.</td><td>No conservation by intervention has been or likely would be implemented to reduce the rate of natural deterioration.</td></tr>
<tr><td colspan="4">Prioritize law enforcement patrol and monitoring of all site components and document in written and visual media for management purposes.</td></tr>
<tr><td colspan="3">Rock art condition assessments and cause of deterioration would be fully documented over time in written and visual media format.</td><td>Condition assessment would continue and conservation methods would be considered.</td></tr>
<tr><td colspan="4">Implement detailed site recordation of archaeological features and rock art elements to preserve site information from potential loss of site constituents.</td></tr>
<tr><td colspan="4">Provide interpretive and educational awareness to the public and Native Americans about the preservation of heritage resources.</td></tr>
<tr><td colspan="4">Public Education, Interpretation, and Archiving</td></tr>
<tr><td colspan="2">Focus cultural and natural history interpretive and education awareness information at on-site field locations or at an appropriate viewing distance with less emphasis on multiple indoor public facilities.</td><td>Focus cultural interpretative and educational opportunities at multiple indoor public facilities as well as at field locations.</td><td></td></tr>
<tr><td colspan="4">El Saucito Ranch interpretive and educational trail program would continue with restricted access, allowing only pedestrian guided tours.
Compile and archive historic documents and photographs.</td></tr>
<tr><td colspan="3">Locate public education and interpretation at indoor public facilities and field locations that are compatible with the specific recreation management zone and VRM class.</td><td rowspan="2"></td></tr>
<tr><td colspan="2">Select additional field locations of public interest for interpretive and educational uses pertinent to cultural and natural history values.</td><td>Limit number of field locations for interpretive and educational uses.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Display cultural resource and natural history information via materials and interpretive signs at on-site locations, by roadsides, or near pedestrian trails at Painted Rock, Wallace Creek, El Saucito and Selby ranches, and potentially other locations.		– Display cultural resource and natural history interpretive information via signs at on-site locations, roadsides, or near pedestrian trails at established locations such as Painted Rock, Wallace Creek, and El Saucito and Selby ranches. – Develop new information as part of a comprehensive interpretive plan.	Continue to display cultural resource information via signs, kiosks, and brochures at Painted Rock, Wallace Creek, and El Saucito and Selby ranches.
Maintain and enhance public education and interpretative information about the Monument's cultural and natural history values at the Goodwin Education Center, or replace it by some other public facility.			– Public education and interpretation at indoor facilities would be limited to Goodwin Education Center, which would continue as the only public building providing contact for visitors. – The facility would be open only during the peak visitor season; staff at the Center would continue to schedule public tours and events.
	Analyze the feasibility of developing a new or expanded public interpretive/educational center. Considerations would include expanding the floor space at the Goodwin Education Center, reconstruction of the 1890s barn at El Saucito Ranch, or construction at some other viable location in the Monument. Public use, scientific research, interpretive/educational programs, and archival storage needs would be considered.		

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Ranching / Farming Machinery and Equipment			
Enhance the natural landscape by removing historic machinery and equipment scattered in the CPNM.	Retain selected representative examples of historic machinery and equipment *in situ* in the Monument as part of the historic landscape.		
Selected historic machinery and equipment would remain in place in field. Continue to relocate selected examples of machinery and equipment scattered in the CPNM to centralized locations such as El Saucito/Traver ranches.	Selected historic machinery and equipment would remain in place in the field. Less emphasis on relocating additional items to centralized locations such as the Traver Ranch and the Goodwin Education Center.		Selected historic machinery and equipment would remain in place in field. Continue to relocate selected examples of machinery and equipment scattered in the CPNM to centralized locations such as El Saucito/Traver ranches.
Emphasize removing historic machinery and equipment from the landscape. Removing or relocating items would be documented and assessed in situ prior to removal pursuant to compliance NHPA Section 106. Priority for removal would be placed on NRHP-ineligible sites, objects that area hazardous to public safety and those located in the Primitive recreation management zone. Avoid adverse effects to eligible properties.	Assess the condition and safety of leaving machinery and equipment scattered across the Monument. If items pose a safety hazard, such items would be slated for removal from the Monument. Removing or relocating items would be documented and assessed in situ prior to removal pursuant to compliance NHPA Section 106.		Some farming and ranching machinery and equipment would continue to be removed from the CPNM where these objects are a safety hazard or are in such poor condition that they have lost their physical integrity. Removing or relocating items would be documented and assessed in situ prior to removal pursuant to compliance NHPA Section 106.
	Provide educational information about the historic machinery/equipment through field-specific interpretive signs, kiosks, or brochures as compatible with recreation management zone objectives.		

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Historic Ranching and Farming Buildings and Structures			
Enhancement of the natural landscape by the removal of historic ranching and farming built facilities.	Emphasize the preservation of historic ranching and farming buildings and structures in the Monument.	Historic ranching and farming buildings and structures would be managed in a state of arrested decay (stabilized).	
Stabilize, rehabilitate, restore, or reconstruct facilities previously identified for preservation such as El Saucito, Washburn, and Selby ranches.	Emphasis to restore, rehabilitate, stabilize, or reconstruct historic ranching and farming buildings and structures eligible for the NRHP and provide public enrichment.	Only stabilize historic ranching and farming facilities such as El Saucito, Washburn, KCL, and Selby ranches. NRHP-eligible properties would have priority over ineligible buildings and structures.	Continue to stabilize and rehabilitate buildings and structures at the El Saucito, Washburn, KCL, and Selby ranches.
Provide educational information such as interpretive signs, kiosks, and brochures at locations such as El Saucito and Selby ranches, or other selected facilities.	Provide public educational interpretive information about historic facilities at selected NRHP sites.	Provide educational information such as interpretive signs, kiosks, and brochures when compatible with the recreation management zone objectives.	Educational information such as interpretive signs, kiosks, would be available to the public at the El Saucito, KCL, Washburn, and Selby ranches.
Priority to enhance natural landscape. Target removal of sites ineligible for the NRHP that have lost their physical integrity and pose a public safety hazard and sites in the Primitive Recreation Management Zone. Facility removal would be subject to site recordation, assessment, and adequate mitigation for NRHP properties	Remove sites ineligible for the NRHP that have lost their physical integrity and pose a public safety hazard. Buildings such as the Traver Ranch may be stabilized for its values associated with wildlife resources and dry-land farming interpretive uses.	Remove sites ineligible for the NRHP that have lost their physical integrity and pose a public safety hazard.	

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
2.12 Visual Resources			
• Conduct management activities and complete developments in a manner sensitive to visual qualities of the area. • Minimize light pollution to retain the area's night sky qualities.			Most of the CPNM would be managed as VRM Class II except for a majority of the Temblor Mountain Range, which is classified as VRM Class III. Some areas along the border of the Monument area would be managed as VRM Class IV.
VRM zone boundaries correspond to recreation management zones: • Primitive (Class I): 83,202acres • Backcountry (Class II): 158,080 acres. • Frontcountry(Class III): 17,040 acres	VRM zone boundaries correspond to recreation management zones: • Primitive (Class I): 54,464 acres • Backcountry (Class II): 186,819 acres • Frontcountry (Class III): 20,839 acres	VRM zone boundaries correspond to recreation management zones: • Primitive (Class I): 17,984 acres • Backcountry (Class II): 223,299 acres. • Frontcountry (Class III): 24,944 acres	
– Complete visual contrast ratings for all proposed surface or visually impacting projects to ensure they meet VRM class objectives. – Complete visual contrast ratings for existing roads and facilities and identify opportunities to reduce existing visual impacts through modifications such as painting water tanks, removing unneeded facilities. – Complete an inventory of existing and potential key scenic vista points along roads and trail corridors within the CPNM and identify opportunities to develop and improve these locations as overlooks and interpretive sites. – Limit exterior lighting of BLM administrative facilities to the minimum necessary for safety and security. Use lighting types and shields that minimize light pollution. – Work with adjoining communities to minimize light sources that impact the Monument.			
In Backcountry and Frontcountry zones, encourage retrofitting of existing facilities to comply with VRM Class II and III objectives. Incorporate mitigation measures to minimize contrast with the characteristic landscape.	In Backcountry and Frontcountry zones, encourage retrofitting of existing facilities to comply with VRM Class II and III objectives. Incorporate mitigation measures to minimize contrast with the characteristic landscape.	In Backcountry and Frontcountry zones, encourage retrofitting of existing facilities to comply with VRM Class II and III objectives. Incorporate mitigation measures to minimize contrast with the characteristic landscape.	

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td colspan="4">2. 13 Wilderness Study Areas and Other Lands with Wilderness Characteristics</td></tr>
<tr><td colspan="3">Manage the Caliente Mountain WSA so as not to impair the area’s suitability for wilderness development.</td><td></td></tr>
<tr><td>Manage all lands inventoried and identified as having potential wilderness characteristics (approximately 65,218 acres) so as not to impair their natural character.</td><td>Manage the Caliente Mountain WSA and the Temblor unit for wilderness characteristics (approximately 36,480 acres) so as not to impair their natural character.</td><td colspan="2">Continue to manage the 17,984-acre Caliente Mountain WSA so as not to impair the area’s suitability for preservation as wilderness.

See Map 2-5, Lands Having Wilderness Character.</td></tr>
<tr><td colspan="3">– All BLM initiated or authorized actions in the Caliente Mountain WSA will follow BLM’s Interim Management Policy for Lands under Wilderness Review.
– If released from further consideration by Congress for wilderness designation, the Caliente Mountain WSA would continue to be managed to protect wilderness character unless the Congressional release language explicitly states otherwise.</td><td>All BLM initiated or authorized actions in the Caliente Mountain WSA will follow BLM’s Interim Management Policy for Lands under Wilderness Review.</td></tr>
<tr><td>Manage all lands inventoried and identified as having potential wilderness characteristics (approximately 65,218 acres) so as not to impair their natural character.</td><td>Manage the Caliente Mountain WSA and the Temblor unit (approximately 36,480 acres) for wilderness characteristics so as not to impair their natural character.</td><td colspan="2">Manage the Caliente Mountain WSA (17,984 acres) so as not to impair the area’s suitability for preservation as wilderness.</td></tr>
<tr><td>All activities in areas managed for wilderness characteristics will follow the guidelines contained in Appendix H, Management of Lands with Wilderness Character.</td><td>All activities in areas managed for wilderness characteristics will follow the guidelines contained in Appendix H, Management of Lands with Wilderness Character.</td><td>All BLM initiated or authorized actions in the Caliente Mountain WSA will follow BLM’s Interim Management Policy for Lands under Wilderness Review.</td><td rowspan="4"></td></tr>
<tr><td colspan="3">Conduct active restoration activities to remove unnatural features.</td></tr>
<tr><td colspan="3">Limited use roads in areas to be managed for wilderness character will be used for administrative purposes only when non-motorized access is not feasible for specific projects. Closed routes will be rehabilitated or converted into non-mechanized trails.</td></tr>
<tr><td colspan="3">Appropriate public use would include non-motorized and non-mechanized activities.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
2.14 Areas of Critical Environmental Concern			
The Carrizo ACEC designation would be dropped for all lands within the National Monument boundary.			The Carrizo Plain would continue to be designated as an ACEC under the Caliente RMP.
2.15 Livestock Grazing			
Manage livestock grazing to meet or exceed the Secretary-approved Central California Standards for Rangeland Health as shown in Appendix E.			
Manage livestock grazing to meet, and to not be in conflict with, the management objectives for all other resources and programs in the Monument.			
Remove all livestock grazing as both an allowable use that utilizes livestock forage, and also as a vegetation management tool that meets objectives other than the production of livestock forage.	Utilize livestock grazing only as a vegetation management tool, which meets objectives other than the production of livestock forage.	Improve opportunities for livestock grazing only in areas where it is an allowable use that utilizes livestock forage, and continue livestock grazing as a vegetation management tool that meets objectives other than the production of livestock forage.	Continue the existing livestock grazing as both an allowable use that utilizes livestock forage, and also as a vegetation management tool that meets objectives other than the production of livestock forage.
– Assess all grazing allotments to determine if they are meeting the Standards for Rangeland Health and adjust those that are not. – Monitor compliance with relevant grazing management guidelines and adjust grazing authorizations as necessary.			
– Monitor or study to determine resource impacts from livestock grazing, including within Section 15 allotments, and adjust grazing authorizations as necessary. – Move the boundary fence to the official Monument boundary when resource benefits outweigh resource damage associated with fence construction or removal.			
Authorize livestock grazing on the approximately 4,200 acres of lands remaining between the fences and the boundary and allocated as "available for livestock grazing" at levels up to those shown on the Grazing Implementation Table.	– Allocate 52,200 acres as "available for livestock grazing" pending any future voluntary relinquishments. – Allocate 128,200 acres as "available for livestock grazing, but only for the purpose of vegetation management."	– Allocate 52,200 acres as “available for livestock grazing.” – Allocate 128,200 acres as “available for livestock grazing, but only for the purpose of vegetation management.”	173,200 acres would remain allocated as “available for livestock grazing.”

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
– Allocate all lands, except for those between the existing fence line and the Monument boundary (approximately 202,300 acres), as “unavailable for any livestock grazing.” – Should the fences be re-aligned to match the monument boundary, re-allocate the lands as “unavailable for any livestock grazing.”	Allocate 26,100 acres as "unavailable for any livestock grazing.”	Allocate 26,100 acres as “unavailable for any livestock grazing.”	33,300 acres would remain allocated as “unavailable for any livestock grazing.”
	Upon voluntary relinquishment of grazing permitted use from a Section 15 lease, re-evaluate livestock grazing vs. land use plan goals and re-allocate all or part of the relinquished permitted use as either "available for livestock grazing, but only for the purpose of vegetation management" or "unavailable for any livestock grazing.”		
Allocate any acquired lands as either "available for livestock grazing," or "unavailable for any livestock grazing."	Allocate any acquired lands as either "available for livestock grazing," "available for livestock grazing, but only for the purpose of vegetation management," or "unavailable for any livestock grazing."		Allocate any acquired lands as either “available for livestock grazing” or “unavailable for any livestock grazing.”
Apply the relevant Central California Rangeland Health Guidelines for Grazing Management to grazing authorizations on all areas.			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
To the approximately 4,200 acres of lands remaining under a grazing authorization, apply the relevant Specific Livestock Management Guidelines.	Apply the relevant Grazing Management Guidelines for the Carrizo Plain National Monument to grazing authorizations on all areas.	– Apply the relevant Specific Livestock Management Guidelines to grazing authorizations on Section 15 allotments. – Apply the relevant Grazing Management Guidelines for Vegetation Management Areas within the CPNM to grazing authorizations on vegetation management areas.	– Apply the relevant Specific Livestock Management Guidelines to grazing authorizations on Section 15 allotments. – Apply the relevant Grazing Management Guidelines for the Carrizo Plain as detailed in the annually derived Pasture/Guideline Matrix to grazing authorizations on vegetation management areas.
– Evaluate livestock management facilities for other uses and remove those that were only used to support livestock grazing. – Maintain perimeter fences to exclude livestock use from outside the monument.	Create, modify, maintain, or remove livestock management facilities to support livestock grazing or to meet other resource objective.	Create, modify, maintain, or remove livestock management facilities to support increased livestock grazing.	Create, modify, maintain, or remove livestock management facilities to support livestock grazing or to meet other resource objectives.
2.16 Recreation and Interpretation			
• Provide recreation opportunities and interpretative programs that enhance the public's appreciation of the objects of the Monument Proclamation and other Monument resources. • Manage Monument lands to provide quality recreation while protecting natural and cultural resources, promoting safety and minimizing conflicts between users and wildlife. • Identify specific management zones that will each offer distinct types of recreation settings and opportunities to monument visitors.			• Facilities – develop facilities that would enhance public enjoyment and educational experiences while minimizing impact on resources and existing uses. • Camping – provide designated

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Objectives listed by zone and setting (physical, social, and managerial) are contained in Chapter 2. Section 2.16 Recreation and Interpretation, and not detailed below. • Provide limited visitor facilities within the Monument as necessary for visitor access to provide interpretive opportunities, and for the protection of natural and cultural resources. • Allow recreation activities and group uses that are compatible with cultural and biological resource objectives and provide opportunities to appreciate the natural and cultural resources. • Provide universal access to new facilities and retrofit existing facilities to comply with the *Americans with Disabilities Act* and the recreation program objectives for each management zone. Retrofitting will also incorporate other applicable requirements such as those for historic structures. • Seek out new and maintain existing partnerships with communities and user groups to further the mission of the Monument and complementary community goals. • New types of recreation uses may be allowed if they are compatible with the goals and objectives of this plan. • Target marketing of Monument recreation opportunities to visitors seeking experiences that are compatible with area resource protection objectives and the rustic setting. • Provide a comprehensive natural and cultural resource interpretive program that tells the story of the Monument and its significance (note: This program is discussed in more detail in the Cultural Resources section). [Note: Zone objectives do not vary by alternative; it is the acreage allocated to each zone that varies, see Chapter 2, Section 2.16.2.2.]			camping areas and related facilities compatible with the goals of the CPNM. • Hunting – provide opportunities for hunting consistent with the mission and manage for compatibility with the goals of the Proclamation. • Other Recreation – Permit other types of recreation if compatible with sensitive resources. Allow Special Recreation Use Permits compatible with the goals and objectives of this plan. • Interpretation – increase the understanding and awareness of the resource values of the CPNM and foster an interest in their protection. Operate the Guy L. Goodwin Education Center to enhance the educational and recreational enjoyment of visitors.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
– Determine whether recreation sites and programs meet criteria for charging standard or extended amenity fees under the Federal Lands Recreation Enhancement Act and, if so, follow appropriate process. – Assess/improve (and develop, as appropriate, new) overlooks, interpretive facilities and programs. – Develop comprehensive sign plan for all directional, informational, educational, and interpretive signage. – Develop and maintain public potable water sources where feasible at developed recreation facilities. – Provide adequate and timely maintenance of all facilities and signs. – Develop a comprehensive communication program on monument recreation opportunities: – Develop a driving/riding interpretive tour through the Monument. – Monitor recreational use impacts on natural and cultural resources and on social settings and take corrective actions, as necessary. – Permit low-impact, commercial, and organized group recreation activities and events that are compatible with cultural and biological resource objectives and that relate to Monument resources. – Establish supplementary rules and regulations where required and/or carry forward existing rules and regulations to protect resources and provide for visitor safety. – Develop an education and outreach program that targets motorized recreational visitors. – Ensure that recreation, interpretive, and other public facilities meet accessibility standards. – Develop and maintain partnerships with organized user groups. – Develop and maintain partnerships with gateway communities to provide visitor services and/or facilities outside the Monument. – Above-ground cache activities such as geocaching, earthcaching, and letter boxing may be allowed in non-sensitive areas. – Develop a targeted marketing plan to ensure that visitor information and outreach messages are compatible with the Monument's recreation niche and the protection of Monument objectives. – Develop a comprehensive natural and cultural interpretive plan for the Monument.			– Allow only recreational activities that are compatible with sensitive resources and Monument Proclamation. – Consider activities that focus on CPNM special resources, benefit the CPNM, or provide public education opportunities without negative impacts. – Require a Special Recreation Use Permit or Letter of Authorization for activities consistent with the RMP for organized groups of 20 or more. – Use existing Interpretive Prospectus, and continue developing outreach programs, establish a docent program, and enforce state hunting code and regulations. – Develop hunter information guide and monitor for conflicts between hunting and sensitive resources. – Monitor visitor use and direct visitors to established facilities outside the CPNM for target shooting. – Establish a ¼ mile radius closure for firearm discharge around Selby and KCL campgrounds, Goodwin Education Center, Washburn and MU Ranch headquarters, Soda Lake Overlook complex, and Wallace Creek interpretive site. – Design facilities with minimal adverse impacts and monitor.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Monument-Wide			
Protect Monument resources by allowing camping with motorized vehicles only in developed campgrounds.	• Reduce the risk of death or injury to the kit fox and other listed animal species from accidental shootings by eliminating varmint hunting. • Continue to provide a wide variety of distinct recreation opportunities through zoning. Emphasize vast open spaces, opportunities for solitude, and provide for compatible dispersed recreation activities.	Continue to provide a wide variety of distinct recreation opportunities through zoning. Emphasize visitor orientation and recreation in an expanded Frontcountry zone, provide for compatible dispersed recreation activities, and continue to provide opportunities for solitude within the Wilderness Study Area.	
Allow camping with vehicles in developed campgrounds only. Dispersed camping would not be permitted. Allow overnight parking in designated locations for backpacking.	Allow dispersed camping in designated areas, with corrective action up to possible area closure if monitoring shows resource impacts.		– Evaluate potential sites for additional camping areas, as required. – Maintain and improve Selby and KCL campgrounds. – Monitor designated camping areas for impacts and survey visitor use for present and future demands. – Limit overnight camping to 14 days in any 30-day period and 28 days in one year, and to designated camping areas, except as specified in writing by the CPNM Manager.
Primitive Zone			
Manage existing 17,984-acre Caliente Mountain WSA plus 65,218 acres as Primitive.	Manage existing 17,984-acre Caliente Mountain WSA plus 36,480 acres as Primitive.	Manage the existing 17,984-acre Caliente Mountain WSA as Primitive.	No zones identified.
Provide only facilities necessary for resource protection and visitor safety. Typical facilities may include trail signing, trails, and horse hitching rails.			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
– No interpretive and directional information would be provided within the zone, but would be available before entering area. – Provide minimal signing only for resource protection or visitor safety.	– Interpretive and directional information not provided within the zone. – Provide minimal signing only for resource protection or visitor safety.	– Interpretive and directional information not provided within the zone, but available off-site (brochures, internet, and audio tours). – Provide minimal signing only for resource protection or visitor safety.	
A variety of non-motorized and non-mechanized recreational activities such as hiking, equestrian use, camping, wildlife viewing, nature photography, and other activities consistent with the goal of providing a primitive experience would be allowed.			Allow low impact and horse camping along the Caliente Ridge and in Caliente Mountain WSA. No facilities will be located within this designated camping area.
Backcountry Zone			
Manage 158,080 acres as Backcountry.	Manage 186,819 acres as Backcountry.	Manage 223,299 acres as Backcountry	No zones identified.
Facilities would be limited to such items as small interpretive sites and trailheads.	Provide amenities at designated dispersed camping areas for resource protection and to encourage use in areas that are already impacted. Facilities would retain a rustic character.		
– Provide rustic informational signage on roads, trails, at trailheads, and at other facilities. – Minor overlooks would be limited to pull-outs or small areas with no amenities (Alternative 1) or few amenities (Alternatives 2 and 3). Most interpretive information would be obtained by the visitor in facilities located in the Frontcountry zone.			
Allow a variety of non-motorized and motorized recreational activities with uses compatible with goals for the Backcountry zone.	– Allow a variety of non-motorized and motorized recreational activities with uses compatible with goals for the Backcountry zone. – Low-impact, non-motorized competitive activities and events consistent with Monument Proclamation and resource objectives may be authorized. Support facilities would be located at existing or approved BLM sites, or outside of the Monument boundary. Competitive events shall not include the release of nonnative or captive-held native species.		

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Frontcountry Zone			
Manage 11,585 acres as Frontcountry.	Manage 15,384 acres as Frontcountry.	Manage 24,944 acres as Frontcountry.	No zones identified.
– Provide recreational and interpretive facilities with amenities that provide for visitor orientation, safety, comfort, and resource protection at overlooks, trailheads, and at interpretive kiosks. When possible, utilize construction standards that portray a rustic character. – Provide trailheads, parking areas, campgrounds, the Goodwin Education Center, roads, and other facilities that support the recreational and interpretation goals of the Monument.			– Maintain a parking area along Elkhorn Road near Wallace Creek. – Maintain the Soda Lake Boardwalk.
– Improve and expand existing interpretive programs at existing kiosks, the Goodwin Education Center, Soda Lake Boardwalk, Soda Lake Overlook, Wallace Creek, Painted Rock (Alternatives 2 and 3 only), El Saucito, and other sites. Additional interpretive areas along primary access roads may be developed. – Provide guided tours of Painted Rock (Alternatives 2 and 3 only) and El Saucito Ranch. – Expand the Goodwin Educational/Visitor's Center. – Provide directional and informational signage along roads and at facilities.			– Relocate plaques top of hill Soda Lake Overlook to a lower elevation. – Develop a roadside pullout with kiosk at southern end of Soda Lake Road.
Allow a wide variety of motorized and non-motorized uses.	– Allow a wide variety of motorized and non-motorized uses. – Low-impact, non-motorized competitive activities and events that are consistent with the Monument Proclamation and resource objectives may be authorized. Support facilities would be located at existing or approved BLM sites or outside of the Monument boundary. Competitive events shall not include the release of nonnative or captive-held native species.		– Use traffic counters, trail registers, and visitor questionnaires to monitor visitor use/requirements. – Establish Goodwin Education Center as primary location for visitor information and educational materials.
A 1,204-acre area from Painted Rock to Selby Rocks will be closed to horses, livestock, dogs, and the discharge of firearms. The closed area would not include Selby Road or Caliente Mountain Road.			Close the area from Painted Rock to the Goodwin Education Center to the discharge of firearms.
Painted Rock and a 500- to 1,000-foot buffer around it would be closed to public access.	An access permit (maximum 20 visitors per permit) would be required for all self-guided tours to Painted Rock. Painted Rock would be closed from dusk to dawn.		– Develop an operational strategy for the Goodwin Education Center. – Provide facilities at the Painted Rock Parking Area and interpretation on a portion of the Painted Rock Trail.
	Prohibit campfires within the Painted Rock Exclusion Zone while allowing for approved Native American ceremonial use of fire.		

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
2.17 Administrative Facilities			
• Provide administrative and maintenance facilities to support the management of the Monument. • Use "green" building techniques that minimize use of natural resources and energy and minimize the need for commercial power and utility corridors related to Monument administrative sites.			No explicit objectives or actions are included in existing management plans regarding administrative facilities.
– Maintain existing administrative sites including Washburn Ranch and the MU Ranch. – Determine the need to accommodate future employees, seasonal workforce, and researchers at the Washburn Ranch and increase housing capabilities as needed. – Provide location(s) for researchers to link to the internet and other communication mediums. – Maintain the facilities at the MU Ranch for employees and research housing. – Expand the Visitor Center to better accommodate employees and enhance educational opportunities. – Work with PG&E and CDFG to install solar power at the Visitor Center and the Painted Rock Ranch. – Incorporate green design elements and alternative sources of power when developing or retrofitting any administrative sites.			
2.18 Travel Management			
• Provide a safe and effective travel network (including roads and trails) that supports administration and public recreation use of the Monument commensurate with the respective recreation management zone objectives. • Ensure that the Monument road network is designed and managed to minimize impacts to natural and cultural resource values. • Provide reasonable access to private surface land inholders and mineral estate owners as required by law.			Provide access for recreation and to facilities, where compatible with sensitive resources.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
– Backcountry and the Frontcountry zones are designated as limited areas. The Primitive zone is designated as a closed area. No areas are designated as open areas based on the Monument Proclamation, which also only allows travel on existing roads. – Develop a comprehensive travel information program. – Roads would be subject to temporary closure during wet periods and after washouts. – Provide reasonable access to private surface land inholders and mineral estate owners. – Develop a road maintenance plan. – Identify and close unneeded or redundant travelways. – Upon acquisition of private land inholdings, evaluate inclusion in network (and designation) or closure of access roads. – Minimize impacts to water quality and other resources through proper design, maintenance, or minor rerouting of roads. – Reduce illegal off-road travel such as education, enforcement, and placement of physical barriers. – All existing roads within the Primitive zone would be designated as closed to public use, and would be converted into trails or rehabilitated back to their natural state. Certain specific routes that are necessary for administrative access would be available for this use based.			– No off-road motorized or mechanized travel. – Temporary road closures during wet periods and after washouts. – Monitor areas annually to determine if routes should be closed permanently or seasonally to reduce safety hazards, impacts to sensitive resources, and unnecessary damage to roads. – Provide access to Painted Rock. Upgrade the portion from Soda Lake Road to the Goodwin Education Center to an all-weather surface. Maintain access from Selby Road for administrative use and for permitted groups.
Open roads to the public: 269 miles Limited roads: 97 miles Closed roads: 81 miles Trails: 7 miles	Open roads to the public: 278 miles Limited roads: 124 miles Closed roads: 45 miles Trails: 7 miles	Open roads to the public: 322 miles Limited roads: 115 miles Closed roads: 10 miles Trails: 7 miles	Open roads to the public: 322 miles Limited roads: 115 miles Closed roads: 10 miles Trails: 7 miles
Open area: 0 acres Limited: 175,120 acres Closed: 83,200 acres	Open area: 0 acres Limited: 207,658 acres Closed: 54,464 acres	Open area: 0 acres Limited: 248,243 acres Closed: 17,984 acres	
Backcountry Zone			
Only street-licensed vehicles allowed in the Backcountry zone. No green or red sticker vehicles registered under the state OHV program would be allowed.	Only licensed vehicles and other vehicles registered through the green or red sticker state OHV program such as off-road motorcycles, four wheelers, and other OHVs would be allowed on designated roads.		

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Frontcountry Zone			
Work with San Luis Obispo County to maintain Soda Lake Road comparable to a maintenance level 3 gravel road.	Work with San Luis Obispo County to maintain Soda Lake Road comparable to a level 4 BLM maintenance standard.		
Only street-licensed vehicles allowed in the Frontcountry zone. No green or red sticker vehicles would be allowed.			
2.19 Minerals			
Existing Oil and Gas Leases			
Establish SOPs and implementation guidelines, including best management practices, for all projects to ensure that monument resources are protected while allowing reasonable access for valid existing rights for mineral development.			
– Review all projects and apply the Biological SOPs and the SOPS for Oil and Gas. – Inspect facilities for environmental compliance. Shut-in or abandoned wells will be inventoried and evaluated for final plugging and restoration prioritization. – As leases stop producing, process termination or expiration in a timely manner. – Conduct annual surface inspection on all leases to identify and remediate any hazards or impacts. – Conduct training for operators on management goals, sensitive resources, and best management practices. Additional CPNM-specific best management practices may be developed. – Manage the existing oil producing acreage on the southern side of the Caliente Range to maintain ecological processes and to assure lease restoration upon final abandonment of the last well. – Review existing disturbed areas and require reclamation of those areas determined to be redundant. – Design roads, well pads, and facilities to impact and fragment the least acreage practicable. – Ensure best management practices are followed. – Wells that are not commercially developed would be reclaimed to natural contours and revegetated as soon as appropriate. – Review applications for Permit to Drill, Sundry Notices, and Final Abandonment Notices using the existing NEPA approval process. – Require timely plugging and appropriately designed abandonment of depleted wells.			
Provide extra resources to operators for existing and new operations.			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Inspect annually.	Conduct detailed lease inspections more often than once every three years, with a goal of at least every other year and would occur more often when problems are found.	Conduct detailed lease inspections at least every three years, more often when problems are found.	
Encourage operators plug or return to production federal idle wells first, then fee wells.	Encourage operators to return to production or plug 4 percent of all 5-year idle wells (federal or private) per year. Encourage operators to focus on federal wells within the Monument.	Require operators to return to production of plug 4 percent of all 5-year idle wells (federal or private) per year.	
Pursue termination of all idle leases.		Pursue termination of idle leases (keep two existing idle leases at their current place on the priority list for termination).	
Maximize intermediate reclamation of redundant or unnecessary disturbed areas.	Encourage operators to conduct intermediate reclamation of redundant or unnecessary disturbed areas.	Reclaim disturbed areas only upon final abandonment or lease termination.	Encourage operators to conduct intermediate reclamation of redundant and unnecessary disturbed areas.
	For all new lease actions, require protection based on lease stipulations, conditions of approval, and BLM regulations, consistent with other BLM leases within threatened and endangered habitat.		
	Encourage operator actions to lessen the visual impacts of existing developments.		Attempt to acquire private minerals from willing sellers only in conjunction with purchase of surface estate.
	Allow access for geophysical exploration with conditions that ensure resources protection.		Allow access for geophysical exploration with conditions that ensure resource protection.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Solid Minerals			
Identify potential site for emergency/administrative sand and gravel extraction (for example, to facilitate limited Monument maintenance, road or other).			
All materials would be imported from outside the Monument.	Develop a materials site in the CPNM for limited administrative/emergency Monument use.		
Private Mineral Estate (Use of BLM Surface for Private Mineral Activities)			
• Non-Geophysical: Allow for reasonable exploration and development of private mineral estate consistent with protection of Monument resources. • Geophysical Exploration: Authorize geophysical activities within the Monument for exploration of mineral resources inside or outside the boundary of the Monument in a manner that protects the objects of the Monument Proclamation.			No Monument-specific direction provided. Management would be based on existing federal and state policy.
For all private oilfield actions that require use of BLM surface, including cross-country travel on BLM lands to reach private minerals, require authorization and avoidance / mitigation measures.			No explicit direction provided. Management would be based on existing federal and state policy.
– To the extent practical, minimize disturbance by purchasing split estate mineral estate and by emphasizing resource protection. – Attempt to acquire private minerals from willing sellers in conjunction with purchase of surface estate, or for split estate minerals (where BLM already owns the surface) whenever specifically designated funds are made available by outside sources.	Attempt to first acquire private minerals from willing sellers whenever surface estate is purchased. Secondary focus is to acquire (from willing sellers) split estate private minerals (where BLM already owns the surface).	Attempt to acquire private minerals from willing sellers only in conjunction with purchase of surface estate.	No explicit direction provided. Management would be based on existing federal and state policy.
Only authorize geophysical activities that do not result in damage to the objects of the Monument Proclamation.			No explicit direction provided. Management would be based on existing federal and state policy.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
2.20 Lands and Realty			
Land Tenure			
• Retain all lands within the CPNM currently in federal ownership, except for certain specific situations that would further the purposes of the Monument Proclamation per the management actions below. • Consolidate and/or acquire land and/or mineral estate from willing sellers.			• Acquire, from willing sellers, all remaining private lands within the boundaries of the CPNM. • Evaluate new land use applications for consistency with the long-term goals and objectives.
– Acquire all non-federal land and/or mineral estate within the boundaries of the Monument if it may further the protective purposes of the Monument, from willing sellers by purchase, exchange, or donation, as opportunities arise. – Work with partners to pool resources and avoid duplication of effort. – Where land cannot be acquired, pursue conservation easements or other forms of protection. – The only form of land exchange within the Monument boundary, as stated in the Monument Proclamation, would be an "exchange that furthers the protective purposes of the Monument." Exchanges would be evaluated on a case-by-case basis. Lands acquired with Land, Water, and Conservation Funds are not available for disposal or exchange. All lands acquired through a compensation program would only be exchanged after consultation with appropriate agencies. – Federal lands within the Monument are not open to application for land sales, state grants, Recreation and Public Purposes Act leases or sales, desert land entries, native allotments, or agricultural leases. – Use so-called friendly condemnation authority to acquire parcels within the Monument where the landowners are willing sellers, but are unable to complete a sale to BLM due to title problems.			– Retain all acquired lands and original public land. – To protect resources in parcels that cannot be acquired in fee, establish agreements or acquire easements . – Allow partners to exchange parcels if mutually beneficial for management. Retain all original mineral rights on split estate lands. – Cooperate with San Luis Obispo County to address private land development issues. – The managing partners may authorize actions that are consistent with the Monument Proclamation. – New applications that are inconsistent with the goals and objectives will not be authorized, including Recreation and Public Purposes Act patent applications, desert land entry applications, and Indian allotment applications.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Increase the amount of protected land for objects identified under the Monument Proclamation, with particular emphasis on rare species, important ecological habitats, and significant cultural resources.	Direct acquisition efforts to those lands with important biological and cultural resources, especially those that currently have limited acreage in public ownership.		
Acquire lands or interest as parcels become available (such as when willing seller contacts BLM, county tax parcel, conservation organization such as Packard Foundation contacts BLM).	– Acquire lands by donation, compensation, exchange, or purchase. Lands will be acquired based on availability, biological or cultural values, and management needs. – Identify target inholdings. Encourage sale or transfer. – Primary focus would be to acquire property that supports important resources or habitat. – Secondary focus would include properties with important ecological characteristics that are potential core areas for the San Joaquin suite of rare species or that support other important CPNM species. – Target inholdings that are important in maintaining the linkage between the CPNM and the San Joaquin Valley. – Develop and maintain a GIS database showing the location of target resources to facilitate acquisition efforts.		– Acquire lands by donation, compensation, exchange, or purchase. Lands will be acquired based on availability, biological or cultural values, and management needs. – Acquire remaining private land to protect and enhance natural and cultural values.
Realty Actions and Utility Corridors			
• Ensure that all real estate actions initiated by BLM protect or enhance the values identified within the Monument Proclamation. • Ensure that all real estate actions initiated by parties other than BLM are compatible with the values identified within the Monument Proclamation. • Manage all existing authorizations within the Monument in keeping with overall purposes of the Monument Proclamation while respecting valid existing rights.			See above objectives
Eliminate all existing communication rights-of-way on the Monument upon expiration of current authorization.	Minimize communication rights-of-way authorizations on the Monument.	Allow new communications facilities and maintain existing facilities consistent with the Monument Proclamation.	

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
– The Monument would be a right-of-way avoidance area. – Right-of-way applications would be evaluated on a case-by-case basis and, if granted, would contain terms and conditions to protect resources. – No new withdrawals would be pursued or anticipated. – Applications for land use permits, such as filming permits, would be evaluated on a case-by-case basis. No apiary permits would be issued. Still and video photography of the pictograph images at Painted Rock and other rock art sites in the Monument would be prohibited for commercial purposes. Applications would be evaluated on a case-by-case basis. – Pursue extinguishing overlapping withdrawals, such as the "National Cooperative Land and Wildlife Management Areas" and the "Classification and Multiple Use" classifications. – Pursue relinquishing unneeded, existing rights-of-way. – Survey and monument (place survey markers) the exterior boundary of the Monument and any other boundaries within the Monument needed for administrative purposes. – The Caliente Mountain WSA and all areas to be managed for wilderness character would be right-of-way exclusion areas (with the exception of required administrative and private inholder access). – Extinguish the two current utility corridor designations. Existing rights-of-way currently within the designated utility corridors would continue as long as the holders maintain the authorizations.			The CPNM will be a right-of-way avoidance area. Land use authorizations will include measures that result in an environmentally superior alternative.
Communication rights-of-way will not be renewed. No new communication rights-of-way will be authorized.	– No new or renewed communication right-of-way would be authorized unless they could meet the objectives of the Monument Proclamation and the VRM classifications in this plan. – Applicants must clearly demonstrate that no feasible off-Monument alternatives exist for placement of facilities. – Work with existing communication right-of-way holders to find alternative off-Monument locations once their current leases expire.	Issue authorizations for new and existing facilities. Renew existing authorizations that may include expansion of existing facilities.	

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
2.21 Research Management			
Research Priority			
• Authorize and encourage on-Monument research in the following order of priority: • Research that has direct implications for improving management and protection of objects of the Monument Proclamation as identified as objectives in the RMP and the Conservation Target Table (Appendix C). • Research that furthers scientific understanding of Monument resources. • Research that has scientific value, but may have only indirect benefits for understanding or management of Monument resources.			• Establish a Research RAC • Develop an understanding: 1) the sustainability of the CPNM natural communities and 2) the role of extraordinary events as an ecological process. • Determine if management activities cause large population fluctuations or seriously impair community function. • Encourage interest, develop programs, maintain research facilities, update maps, and make information available. • Assess the effectiveness of management in achieving stated project goals.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
– Identify research priorities and update or revise annually or as needed. – Allow outside review from a team of scientific experts, as needed, to provide recommendations on study design or effectiveness in meeting management goals. – Focus research efforts on topics that are useful in formulating management actions and promote conservation, with special emphasis on listed or sensitive species and their habitats and significant cultural resources. – Develop a strategy for prioritizing multiple research proposals. – Maintain the Conservation Target Table to determine management prescriptions of biological resources. Encourage and assist researchers in developing studies to answer questions relating to the resource targets and how management actions affect them. Update the table as knowledge is gained.			– Maintain an updated prioritized file of necessary research needs. – Initiate and commit to long-term studies of the factors influencing community composition, structure, and function. – Map all major perturbations of vegetative communities. – Determine the function of extraordinary events in plant and animal communities. – Conduct field observation at least seasonally of each biotic community.
Research Outreach and Support			
Provide a framework that encourages and facilitates quality research in areas of biologic, paleontologic, geologic, and cultural resources.			See above objectives
– Provide support, such as housing, within the Monument for researchers when available. Investigate other housing opportunities. – Provide existing GIS, weather, and vegetation mapping data or other data to researchers. – Work with species experts, members of academia, and other professionals to encourage research involvement. Encourage research projects that will aid in maintaining stable and increasing populations of threatened and endangered species, investigating topics identified in recovery plans. – Consider other outreach methods including sponsoring research symposia. – Coordinate with partners and the scientific community to assess opportunities for establishing an on-Monument research facility.			– Develop a database of former and current researchers and interested professionals. – Coordinate a research outreach program. – Make the Painted Rock Ranch and Washburn Ranch available to house researchers and meetings. – Secure agreements from external specialists to serve on a Research Advisory Council and convene annually. – Provide a list of SOPs required for all projects. – Designate a primary Research Coordinator.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Research Data			
Data gathered through research, inventories, and monitoring will be made available to the scientific community and the public to the greatest extent possible. This will exclude proprietary information such as cultural and paleontological resource data.			See above objectives
– Use state-of-the-art equipment and technology for accurate data collection, retrieval, storage, and information-sharing. – Create a local information archive system. – Manage data consistent with CPNM, BLM, and NLCS policies. – Maintain a list of past and current research, inventory, and survey data on the CPNM public website. – Maintain current aerial photography imagery, digital GIS layers of resources and infrastructure, and utilize other technologies as changes occur and staffing and funding is available. – Develop an educational component to data sharing in conjunction with the Goodwin Education Center and the Friends of the Carrizo to provide outreach to schools and the public. – Increase the Monument's capacity to collect relevant weather data across the landscape in varying habitats.			– Create an information archive system at a central location. – Encourage researchers and staff to disseminate information in a timely manner. – Adopt a standard vegetation classification scheme. Acquire aerial photo coverage every five years. – Develop and maintain an inventory of all species inhabiting the CPNM.
Research Proposal Evaluation / Authorization			
Evaluate and process proposals in a timely manner while ensuring that projects meet Monument research objectives and protect sensitive resource values. The application process/form is included in Appendix D, Research.			See above objectives
– All research projects will undergo an evaluation and approval process which will include an assessment of its priority level, an appropriate level of NEPA analysis by BLM staff, project-specific stipulations, and a final written determination in the form of an authorization, a request for changes to the proposal for resubmission, or denial of the project. – Proposals determined to require further evaluation will be submitted to knowledgeable members of the scientific community for review. – BLM will coordinate with the Monument's Native American Advisory Committee and tribal and other Native Americans before approving research for cultural resources.			– Require proposals for all research prior to initiation. – If research is approved by the managing partners, confirm with a letter of authorization to the principle investigator stating that field work may begin.

The Impacts Summary Table below lists by alternative the impacts on the resources of the CPNM, as assessed in the detailed analysis in Chapter 4. See Chapter 4 for more specific details. The black shaded boxes with white lettering are the resource areas as listed in Chapter 4, with the resource subtopics below it shaded in dark gray, also with white letters. The boxes containing text without shading are the estimated impacts.

No or negligible impacts are predicted from any of the alternatives to prime and unique farmlands, hazardous materials and solid waste, wild and scenic rivers, and public safety. The designation of the Carrizo Plain as a National Monument made the area's administrative designation as an ACEC duplicative, as the same resources identified for protection as an ACEC are also identified in the Monument Proclamation. However, under the no action alternative, the ACEC designation would be carried forward. Since the analysis of impacts for all of the resources within the Monument is done in the context of impacts on the objects of the Monument Proclamation, an analysis covering impacts to the ACEC values would also be duplicative. Therefore, a separate analysis was not conducted for ACEC impacts. The impacts to the objects protected under the Monument Proclamation should be consulted to determine ACEC impacts under the no action alternative.

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td colspan="4">4.2 Wildlife</td></tr>
<tr><td colspan="4">General Wildlife</td></tr>
<tr><td colspan="3">Moderate to major beneficial impacts from managing core areas.
Major beneficial impacts from implementing wildlife management objectives.
Minor to moderate benefit from minimizing fire in shrubs.
Negligible to major benefit from implementing Standards for Rangeland Health.
Negligible impacts from fencing, recreation facilities & activities, and from rights-of-way and permits.</td><td rowspan="2">Major benefits from goal to maintain sustainable populations.
Minor to moderate benefit from reintroducing or augmenting native animal populations.</td></tr>
<tr><td>Moderate to major impacts from eliminating artificial water.
Negligible effects from weed control.</td><td colspan="2">Major benefits from protecting raptor nesting sites. Minor benefit from planting trees.
Minor impacts from restoration activities to reintroduce native plants.
Minor beneficial impacts from oak restoration.
Negligible impacts from restoring soil crusts and weed control.</td></tr>
<tr><td>Major detrimental or beneficial impacts from eliminating livestock</td><td colspan="3">The livestock grazing program would likely continue to maintain suitable habitat structure for native wildlife.
Negligible impacts to shrub-dependant species.</td></tr>
<tr><td>Minor positive effect from closing approximately 71 miles of roads.</td><td>Moderate positive effect from restricted vehicle access.</td><td colspan="2">Minor impacts from travel management program.</td></tr>
<tr><td colspan="4">Negligible to moderate impacts from energy mineral exploration and development.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Same impacts from lands and realty as no action alternative, except that rights-of-way would be reduced.	Moderate to major positive effect from acquisition of lands with important biological resources.		Minor to major beneficial impacts from acquisition of private inholdings. Negligible to minor impacts from authorization of rights-of-way, permits, or other realty actions.
Beneficial impacts from fire suppression.	Fire and fire suppression effects would vary by species. Moderate to major benefits from prescribed fire. Negligible impacts from pile burns.		
Giant Kangaroo Rat			
Major benefit from managing core areas, placing priority on listed species management, maintaining viable populations within core areas, and applying habitat management when needed Moderate to major benefits from conducting research on ecology and monitoring habitat. Moderate to major benefit from managing for a mosaic of habitats. Negligible impacts from managing pronghorn and elk habitat			Major benefit from contributing to conservation and recovery. Major benefits from managing for native species and plant communities
Moderate to major detrimental impact from not employing vegetation management.	Moderate to major benefit to apply vegetation management in core areas and supplementary areas.		Moderate to major detrimental impact from not employing vegetation management.
The management of the Carrizo Plain North and Caliente Foothills North subregions for the benefit of pronghorn and tule elk would result in habitat structure not generally favorable to giant kangaroo rats.			
Negligible impacts from vegetation program.	Minor impacts from vegetation management. Minor to moderate benefits from restoring native plant communities.		Minor impact from restoration activities. Minor to moderate benefit from restoring native plant communities.
Negligible impacts from fire suppression Negligible impacts from mowing and pile burns			Moderate to major benefit from using prescribed fire.
Major detrimental impact from eliminating prescribed fire	Moderate to major benefit from use of prescribed fire		

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td colspan="3">Negligible to major benefit from managing to meet Rangeland Health Standards.</td><td>Major benefit from livestock grazing in years of high biomass.
Minor to moderate detrimental impact in years of other than high biomass.
Moderate to major benefit in high biomass years in Section 15 allotments.
Minor to moderate detrimental impact in other than high biomass years in Section 15 allotments.</td></tr>
<tr><td rowspan="2">Minor to moderate benefit from eliminating livestock grazing in average to dry years (most years).
Moderate to major detrimental impact from eliminating livestock grazing in years of high vegetation biomass (wetter years, less frequent).</td><td>Moderate to major benefit from grazing on 82,000 acres, when needed, to maintain beneficial conditions.</td><td>Moderate to major benefit from grazing on 115,000 acres, when needed, to maintain beneficial conditions.</td><td></td></tr>
<tr><td colspan="2">Moderate to major benefit in years of high vegetation biomass.
Minor to moderate detrimental impact in most years in Section 15 allotments.</td><td></td></tr>
<tr><td colspan="2">Minor benefit from road closures.</td><td colspan="2">Minor impact from current roads</td></tr>
<tr><td colspan="2">Negligible impacts from recreation facilities and activities.</td><td>Minor detrimental impacts from new facilities in core areas in Elkhorn Plain.</td><td>Negligible impacts from recreation facilities and activities.</td></tr>
<tr><td colspan="4">Minor to moderate impacts from energy exploration/development on valley floor.
Negligible impacts from energy development in Russell Ranch Field.
Minor to moderate impacts from geophysical exploration.</td></tr>
<tr><td colspan="3">Negligible impacts from air, soils, water, paleontological/cultural, and visual resources programs.</td><td></td></tr>
<tr><td colspan="4">San Joaquin Kit Fox</td></tr>
<tr><td colspan="3">Major beneficial impact to conservation and recovery including major benefit from managing core areas, placing priority on listed species management, maintaining viable populations within core areas, and applying habitat management when needed.
Moderate to major benefits from conducting research on ecology and monitoring habitat.
Moderate to major benefit from managing for a mosaic of habitats.
Negligible impacts from managing pronghorn and elk habitat.</td><td>Major benefit from contributing to conservation and recovery.

Major benefits from managing for native species and plant communities</td></tr>
</table>

<table>
<tr><th>Alternative 1</th><th colspan="2">Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td colspan="2">Moderate to major detrimental impact from not employing vegetation management.</td><td colspan="2">Moderate to major benefit from applying vegetation management in core areas and supplementary areas.</td><td></td></tr>
<tr><td>Negligible impacts from vegetation management.</td><td colspan="3">Minor beneficial impacts from vegetation management.
Negligible to minor benefits from restoring previously farmed fields.</td><td>Major benefit from managing native plant communities.
Negligible impact from restoration activities.
Negligible to minor benefit from increasing native plants in restored areas.</td></tr>
<tr><td colspan="2">Negligible impacts from fire suppression.
Negligible impacts from mowing and pile burns.</td><td colspan="2" rowspan="2">Moderate to major benefit from use of prescribed fire.</td><td rowspan="2">Moderate to major benefit from using prescribed fire.</td></tr>
<tr><td>Major detrimental impact from eliminating prescribed fire.</td></tr>
<tr><td colspan="4">Negligible to major benefit from managing to meet Rangeland Health Standards.</td><td rowspan="3">Moderate to major benefit from livestock grazing in years of high biomass in vegetation management area.
Minor to moderate detrimental impact in years of other than high biomass.
Moderate to major benefit in high biomass years in Section 15 allotments.
Minor to moderate detrimental impact in other than high biomass years in Section 15 allotments.</td></tr>
<tr><td rowspan="2">Minor to moderate benefit from eliminating livestock grazing in average to dry years (most years).
Moderate to major detrimental impact from eliminating livestock grazing in years of high vegetation biomass (wetter years, less frequent).</td><td>Moderate to major benefit from grazing on 82,000 acres, when needed, to maintain beneficial conditions.</td><td>Moderate to major benefit from grazing on 115,000 acres, when needed, to maintain beneficial conditions.</td></tr>
<tr><td colspan="2">Moderate to major benefit in years of high vegetation biomass in Section 15 allotments.
Minor to moderate detrimental impact in dryer years (most years) if giant kangaroo rats depressed by grazing in Section 15 allotments.</td></tr>
<tr><td colspan="2">Minor benefits from road closure.</td><td colspan="3">Negligible impact from current roads.</td></tr>
<tr><td colspan="5">Negligible impacts from recreation facilities and activities.</td></tr>
<tr><td colspan="5">Minor impacts from energy exploration/development on valley floor.
Negligible impacts from energy development in Russell Ranch Field.
Minor impacts from geophysical exploration.</td></tr>
</table>

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td colspan="3"></td><td>Negligible beneficial impacts from protection or enhancement of springs, water sources, and drainages.</td></tr>
<tr><td colspan="4">Negligible impacts from air, soils, water, paleontological/cultural, and visual resources programs.</td></tr>
<tr><td colspan="4">Blunt-Nosed Leopard Lizard</td></tr>
<tr><td colspan="3">Major benefit from managing core areas, placing priority on listed species management, maintaining viable populations within core areas, and applying habitat management when needed.
Moderate to major benefit from enhancing habitat for a variety animals, such as mountain plover.
Moderate to major benefits from conducting research on ecology and monitoring habitat.
Moderate to major benefit from managing for a mosaic of shrubland and grassland habitats.
Negligible impacts from wildlife facilities.</td><td rowspan="2">Major benefit from contributing to conservation and recovery.
Major benefits from managing for native species and plant communities.</td></tr>
<tr><td colspan="3">Moderate to major benefit from applying vegetation management in core areas and supplementary areas.</td></tr>
<tr><td></td><td colspan="2">Minor impacts from restoration activities.
Minor to moderate benefit from improving native species and plant communities.</td><td>Minor impact from restoration activities.
Minor to moderate benefit from restoring native plant communities.</td></tr>
<tr><td colspan="3">Negligible impacts from fire suppression.
Negligible impacts from mowing and pile burns.</td><td rowspan="2">Moderate to major benefit from using prescribed fire.</td></tr>
<tr><td colspan="3">Major detrimental impact from eliminating prescribed fire.</td></tr>
<tr><td colspan="3">Negligible to major benefit from managing to meet Rangeland Health Standards.</td><td rowspan="3">Moderate to major benefit from livestock grazing in years of high biomass in vegetation management area.
Moderate to major benefit in high biomass years in Section 15 allotments.</td></tr>
<tr><td>Major detrimental impact from removing livestock grazing in vegetation management area.
Negligible impact in most years in the Cuyama Valley Section 15 allotments.</td><td>Moderate to major benefit from grazing on 82,000 acres, when needed, to maintain beneficial conditions.</td><td>Moderate to major benefit from grazing on 115,000 acres, when needed, to maintain beneficial conditions.</td></tr>
<tr><td>Moderate to major detrimental impact from removing livestock grazing in years of high biomass in Section 15 allotments.</td><td colspan="2">Moderate to major beneficial impact in years of high vegetation biomass in core and supplementary areas.
Negligible to moderate benefit in years of less than high biomass.</td></tr>
<tr><td colspan="2">Minor to moderate benefit from closing some roads.</td><td colspan="2">Negligible impact from current roads.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Negligible impacts from recreation facilities and activities.		Moderate to major impacts from increasing facilities and activity in the Elkhorn Plain.	Negligible impacts from recreation facilities and activities.
Minor impacts from energy exploration/development on valley floor. Negligible impacts from energy development in Russell Ranch Field. Minor impacts from geophysical exploration.			
Negligible impacts from air, soils, water, geology/paleontology, cultural, and visual programs			
San Joaquin Antelope Squirrel			
Major benefit from managing core areas, placing priority on listed species management, maintaining viable populations within core areas, and applying habitat management when needed. Moderate to major benefits from conducting research on ecology and monitoring habitat. Moderate to major benefit from managing for a mosaic of habitats. Negligible to minor impacts from managing pronghorn and elk habitat.			Major benefit from contributing to conservation and recovery. Major benefits from managing for native species and plant communities
Moderate to major detrimental impact from not employing vegetation management.	Moderate to major benefit from applying vegetation management in core areas and supplementary areas.		
Negligible impacts from vegetation management.	Minor to moderate benefits from restoring native plant communities.		Minor impact from restoration activities. Moderate benefit from restoring native plant communities.
Negligible impacts from fire suppression and fire line restoration activities. Negligible impacts from mowing and pile burns.			Minor effect from using prescribed fire.
Major detrimental impact from eliminating prescribed fire.	Moderate to major benefit from use of prescribed fire.		
Negligible to major benefit from managing to meet Rangeland Health Standards.			Negligible to major benefit from livestock grazing, depending on

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td rowspan="2">Negligible to minor detrimental impact from eliminating livestock grazing in average to dry years (most years).
Moderate to major detrimental impact from eliminating livestock grazing in years of high vegetation biomass (wetter years, less frequent).</td><td>Moderate to major benefit from grazing on 82,000 acres, when needed, to maintain beneficial conditions.</td><td>Moderate to major benefit from grazing on 115,000 acres, when needed, to maintain beneficial conditions.</td><td></td></tr>
<tr><td colspan="2">Moderate to major benefit in years of high vegetation biomass in vegetation management area.
Moderate to major benefits in high vegetation biomass years in Section 15 allotments.
Negligible to moderate benefit in years with less than high biomass.</td><td></td></tr>
<tr><td colspan="2">Negligible impacts from recreation facilities and activities.</td><td>Minor detrimental impacts from new facilities in core areas in Elkhorn Plain.</td><td>Negligible impacts from recreation facilities and activities.</td></tr>
<tr><td colspan="4">Minor to moderate impacts from energy exploration/development on valley floor.
Negligible impacts from energy development in Russell Ranch Field.
Minor impacts from geophysical exploration.</td></tr>
<tr><td colspan="2">Minor benefit from road closures.</td><td colspan="2">Minor to moderate impact from current roads.</td></tr>
<tr><td colspan="4">Negligible impacts from air, soils, water, geology/paleontology, cultural, and visual programs</td></tr>
<tr><td colspan="4">Pallid Bat, Western Mastiff Bat, and Other Bats</td></tr>
<tr><td colspan="4">Major positive impact from actions to maintain a viable population.</td></tr>
<tr><td colspan="4">Minor negative effect from cultural resource monitoring, research, or restoration at rock art sites.</td></tr>
<tr><td>Moderate negative effect from cultural resources structure removal and restoration.</td><td>Minor to moderate negative effect from structure removal and restoration; less impact than Alternative 1 or No Action due to retention of non-eligible structures.</td><td>Moderate to major negative effect from cultural resource structure removal and restoration.</td><td>Minor to moderate negative effect from cultural resource structure removal and restoration.</td></tr>
<tr><td colspan="2">Minor to moderate effect from VRM and WSA removal of structures.</td><td colspan="2">Minor effect from VRM and WSA removal of structures.</td></tr>
<tr><td>Moderate negative effect from discontinuation of grazing (loss of water troughs and foraging habitat quality).</td><td colspan="3">Minor positive effect from continuation of grazing.</td></tr>
<tr><td colspan="3">Minor to moderate negative effect from Recreation Management Zones.</td><td>No Recreation Management Zones.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Moderate to major negative effect from vandalism and roost disturbance associated with recreation.		Moderate to major effects from recreation but slightly greater than Alternatives 1, 2, or No Action.	Same as Alternatives 1 and 2.
Minor to major positive effects from environmental education.			
California Condor			
Moderate positive effect from unobstructed flight paths and support to condor recovery program.			
Minor negative effect if elk and pronghorn disappear.	Minor positive effect from elk and pronghorn management.		
Minor negative effect from discontinuation of grazing.	Minor positive effect from continuation of grazing.		
Minor negative effect from recreational hunters and exposure to lead shot.			
Minor negative effects from exposure to oilfield hazards.			
Minor negative effects from realty actions such as power lines and towers.			
Greater Sandhill Crane and Lesser Sandhill Crane			
Minor positive impact from maintaining roosting and foraging habitat.			Moderate to major positive impact on wintering cranes.
Minor positive impact from restricting the release of native animals that have previously been held in captivity to prevent the spread of disease.		Moderate to major positive impact on sandhill cranes in close proximity to Soda Lake.	
			Minor positive impact from eradication of noxious weeds.
Negligible to minor negative impact from fire and fuels management program.	Minor to major positive impacts from fire management actions that protect sensitive habitat.		
Negligible or no impacts from lack of grazing.	Negligible impacts from livestock grazing.		
Negligible impacts from concentrating visitor use to prevent impacts to cranes.	Negligible (if no disturbance to cranes) to moderate impacts from increased visitors and interpretive sites.		Minor positive impacts from goals, education, and signage.

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td colspan="4">Mountain Plover</td></tr>
<tr><td colspan="3">Major benefit from managing core areas, placing priority on listed species management, maintaining viable populations within core areas, and applying habitat management when needed.
Benefits from conducting research on ecology and monitoring habitat
Moderate benefit from managing for a mosaic of habitats.</td><td>Major beneficial impacts from objective to achieve long-term, viable populations of all extant listed species.
Major beneficial impacts, increasing importance of native species in Monument communities.</td></tr>
<tr><td>Moderate detrimental impacts from the elimination of prescribed fire.</td><td colspan="2">Moderate to major benefits from using prescribed fire, 1,000 acres of prescribed burns, and 5 miles of dozer lines.</td><td>Major benefits from prescribed fire reducing extent of thick grass cover.</td></tr>
<tr><td rowspan="2">Moderate detrimental impact from elimination of livestock grazing as a vegetation management tool; could pose risks to providing suitable winter habitat during prolonged periods of extensive rainfall and high grass production.</td><td colspan="2">Moderate to major benefits from maintaining winter habitat in high biomass years in vegetation management area.
Moderate to major benefit from maintaining habitat in high biomass years in Section 15 allotments.</td><td rowspan="2">Minor to moderate benefit from livestock grazing vegetation management tool to reduce standing biomass.</td></tr>
<tr><td>Moderate to major benefit from grazing on 82,000 acres, when needed, to maintain beneficial conditions.</td><td>Moderate to major benefit from grazing on 115,000 acres, when needed, to maintain beneficial conditions.</td></tr>
<tr><td colspan="4">Negligible effects from mineral development of 22.5 acres on valley floor.
Negligible effect from geophysical exploration.</td></tr>
<tr><td colspan="4">Western Burrowing Owl</td></tr>
<tr><td colspan="4">Moderate to major positive effects from actions to maintain viable populations.</td></tr>
<tr><td>Moderate negative effect from lack of fire.</td><td colspan="3">Minor to moderate short term negative effect from fire activities; moderate positive effect from fire results.</td></tr>
<tr><td>Moderate negative effect from discontinuation of grazing.</td><td colspan="3">Moderate positive effect from continuation of grazing.</td></tr>
<tr><td colspan="2">Minor negative effect from recreation (harassment by pets, human disturbance accidental shooting).</td><td>Minor to moderate negative effects from recreation.</td><td>Same as Alternative 1 and 2.</td></tr>
<tr><td colspan="2">Minor to moderate negative effects from vehicle strikes.</td><td>Minor to moderate negative effects from vehicle strikes.</td><td>Same as Alternative 1 and 2.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Western Spadefoot Toad			
Minor to major positive impacts from actions to maintain populations and habitat.			Management actions that protect vernal pools and fairy shrimp also provide protection of spadefoot toads.
Positive impacts from eliminating noxious weeds and improving upland habitat for adult toads.			
	Negligible to no impacts from use of herbicides or prescribed fire by avoidance or timing of use.		
Effects of fire may range from no impact to minor impact, depending on whether the fire is in toad habitat. Minor impacts are expected to be short-term but could range to long-term if fire is followed by drought. No impacts from prescribed fire if pools and habitat avoided.			
Minor to moderate, but localized, impacts from 1 mile of dozer line that could be long-term if followed by drought in upland areas; no impacts to vernal pools if avoided. Negligible to minor impacts from fire vehicles.			
No grazing may result in negligible impacts – use other means to reduce evapotranspiration. Major impacts if water chemistry from livestock is needed.	Positive impacts from reducing evapotranspiration. Negligible to minor impacts by damaging eggs, tadpoles, and toads.		Positive impacts from reducing evapotranspiration. Negligible to minor impacts from reducing water levels and damaging eggs, tadpoles, and toads.
Negligible to no impacts from recreation on all zones if visitor use is directed away from toad pools and upland habitat.			Negligible impact from recreation on migrating adults and dispersing juveniles.
Minor to moderate positive impacts from prohibiting OHV use in the Backcountry. Alternative 1 offers the most protection for toads.	Negligible to minor impacts to toad population overall with expected minor to moderate localized impacts to toads in pools in roads and habitat adjacent to roads. Minor to moderate positive impacts if additional protection measures are taken.	Negligible to minor impacts to toad population overall with expected minor to moderate localized impacts to toads in pools in roads and habitat adjacent to roads. Minor to moderate positive impacts if additional protection measures are taken.	Negligible to minor impacts from travel management.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Kern Primrose Sphinx Moth			
Moderate to major positive effects from actions to maintain viable populations.			
No impacts from discontinuation of grazing.	Minor to moderate negative effects from continuation of grazing.		
Minor to moderate negative effects from recreation (walking, horseback riding, and pet travel down washes).		Moderate negative effect from recreation.	Same as Alternative 1 and 2.
Minor to moderate negative effects from travel management on Soda Lake Road and Calf Shed road; minor positive effect from closure of Elkhorn Scarp Road.	Minor to moderate negative effects from travel management.		
Moderate to major positive effect from land acquisition, but slow rate.	Moderate to major positive effect and increased rate of habitat acquisition.		Same as Alternative 1.
Longhorn, Vernal Pool, and other Fairy Shrimp			
Moderate to major positive effects from actions to maintain viable populations.			
Populations in currently ungrazed areas should be maintained. Populations in currently grazed areas may or may not be maintained.	Continuation of existing grazed and ungrazed patterns should maintain shrimp populations.		
Moderate positive effect from acquisition of shrimp habitat.			
Pronghorn			
Moderate to major beneficial impact from general wildlife program.			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Major benefits from removing livestock fences. Major detrimental impact from not providing artificial water sources. Major detrimental impact from not allowing herd augmentation. Herd may decline without active management.	Major beneficial impact from restoring native plant communities (shrubs, tall grasses and forbs, and perennial grasses); managing for a mosaic of forage resources; and maintaining adequate habitat structure and adequate fawning cover.		Major benefits from managing for native species and plant communities, sustainable populations of native species, and reintroduction of native animals. Major benefit from maintenance of existing water sources and construction of new water sources. Moderate to major benefit from fence modification, previously cultivated farm fields, abandoned roads, or in habitats with a low proportion of native plant species.
	Major benefit from maintaining water sources.	Moderate benefit from constructing new water sources.	Moderate to major beneficial impacts from fire suppression activities that protect the loss of shrub communities.
Eliminating prescribed fire would remove an important tool to improve forage quality and alter habitat structure and would have major detrimental impacts to pronghorn in the Monument.	Moderate to major beneficial impacts from prescribed fire by improving forage species composition during the following winter and spring growing seasons.		
Major detrimental impact from eliminating native plant restoration.	Major benefit from vegetation restoration.		Major benefit from mosaic of habitats. Moderate to major benefit from native vegetation restoration.
Major detrimental impact from eliminating use of prescribed fire.	Major benefit from use of prescribed fire to improve forage.		Moderate to major benefit from use of prescribed fire to improve forage.
Moderate to major benefits from removing livestock grazing in wet years Negligible effect in normal and low rainfall years.	Moderate benefit from using prescribed grazing in Conservation Target Table.		Moderate detrimental effect of livestock grazing. Moderate to major benefit from modifying livestock fences.

<table>
<tr><th>Alternative 1</th><th colspan="2">Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td colspan="5">Tule Elk</td></tr>
<tr><td colspan="3">Negligible to minor benefit from general wildlife program.</td><td rowspan="3">Moderate benefits from managing for native species and plant communities, sustainable populations of native species, and reintroduction of native animals.
Moderate benefit from maintaining existing water sources and constructing new water sources.
Moderate benefit from managing habitat with livestock grazing, prescribed fire and other vegetation management prescriptions to reach population objective.</td></tr>
<tr><td>Moderate detrimental impact from not providing artificial waters, prescribed fire, and restoring habitat.
Minor to moderate benefits from removal of fences.</td><td colspan="2">Moderate benefit from implementing livestock grazing prescriptions, prescribed fire, habitat restoration, and supplemental waters.
Moderate benefit from herd augmentation.</td></tr>
<tr><td></td><td>Moderate benefit from maintaining water sources.</td><td>Moderate benefit from constructing new water sources.</td></tr>
<tr><td>Minor detrimental impact from eliminating native plant restoration.</td><td colspan="2">Moderate benefit from vegetation restoration</td><td>Moderate benefit from mosaic of habitats.
Moderate benefit from native vegetation restoration.</td></tr>
<tr><td>Moderate detrimental impact from eliminating use of prescribed fire.</td><td colspan="2">Moderate benefit from use of prescribed fire to improve forage.</td><td>Moderate benefit from use of prescribed fire to improve forage.</td></tr>
<tr><td colspan="3">Negligible to moderate benefit from managing to meet Rangeland Health Standards.</td><td rowspan="2">Moderate benefit from reducing livestock grazing in pastures used by elk.</td></tr>
<tr><td>Moderate benefits from removing livestock grazing in calving season and from avoiding conflicts for access to waters.</td><td colspan="2">Moderate benefit of livestock grazing as applied in the Conservation Target Table.
Moderate benefit from modifying livestock fences.</td></tr>
<tr><td colspan="5">Long-Billed Curlew</td></tr>
<tr><td colspan="5">Moderate to major positive impacts from actions to maintain viable populations, with a focus on inland, non-breeding populations and on foraging and roosting habitat.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Moderate to major, positive, and indirect impact from actions to increase and maintain native plant species and communities, including grasslands and shrubs at different seral stages, using a variety of restoration methods to increase diversity and species richness, and working toward eliminating noxious weeds in foraging and roosting areas.			Moderate to major positive impact from actions to increase and maintain native plants, communities and habitat types, and use a variety of restoration methods.
Negligible impact from fire and fuels management.	Actions for prescribed fire are expected to have a localized, short-term beneficial impact.		
Negligible or no impacts expected from livestock grazing.			
Raptors			
Moderate to major positive impact from actions to maintain viable populations of raptors with efforts focused on breeding, wintering, and/or year-round species.			
Minor to moderate positive impacts from actions to protect nesting sites and prevent disease introduction.	Minor to major positive impacts from annual surveys of wintering raptors, inventories of nesting sites, protecting sites from humans, addressing electrocution problems, and actions to prevent introduction of diseases.		
	Moderate to major positive impact from actions that maintain or improve habitat through a variety of restoration methods.		
Negligible effects from fuel reduction practices if timed correctly. The effects on raptors of prescribed fire unavailability as a tool are unknown. Negligible impacts from wildland fire suppression if retardant drops avoid rock outcroppings.	Potential mortality to ground-nesting birds from backburns as a fire suppression tactic. Negligible to minor and localized impacts from wildfires during ground nesting season. Negligible impacts from prescribed fires designed to minimize or avoid ground-nesting birds or timed to occur post fledging.		Negligible effects from fuel reduction practices if timed correctly. Actions to protect facilities from fire and rock outcroppings from retardant drops will benefit raptors. Prescribed fire may provide indirect benefits to raptors.
Negligible to no impacts tours at Painted Rock. Alternative 1 would have the least impacts to raptors.	Negligible impacts by reduced visitation to Painted Rock but negligible to minor at other sites.		Negligible to minor localized effects from tours at or near nesting sites.
Negligible impacts from lack of livestock grazing.	Overall, negligible to minor impacts from livestock grazing and its effects on prey species.		

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
4.3 Vegetation			
Benefits from fencing to protect up to 500 acres of vulnerable rare plant populations from livestock, lessen foot travel and equestrian use, and minimize OHV trespass; restricting grazing within specific pastures (such as those with California jewelflower); restoring and augmenting 10 to 100 acres of rare plant habitat; and the multiplication of rare plant seed by growing off site.			
Benefits from hand and mechanical treatment of 10 to 100 acres of weeds over the life of the plan to remove nonnative competitors and invasive weedy exotics.	Restoring 200 to 500 acres of native habitat per year would increase the amount of native plants. Prescribed fires to promote native vegetation should result in an average of 200 to 1,000 acres per year of improved habitat. The alteration of 1 to 100 acres of roadside terrain to restore natural landscape water flow patterns would improve and expand saltbush populations. Restoring 10 to 100 acres of crust habitat would involve some initial negative effects to native species in target sites, but overall, native plant species should benefit. Treating 10 to 100 acres of weeds (average per year) should benefit native plants by removing nonnative competitors and invasive weedy exotics.		Benefits from restoration of 600 to 1,200 acres of native vegetation; burning 5,000 to 10,000 acres to improve habitat; restoring 10 acres and protecting riparian habitats; provision of source of restoration materials. Initial damage but overall benefit from burning 500 to 2,000 acres to pretreat restoration sites, and from weed control.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Wildlife program would have minor negative to moderate positive impacts to vegetation. Restoration of about 1,000 acres of wildlife habitat would have positive impacts. Grazing in vernal pool areas may have negative impacts to vegetation. Control of exotic animals would have positive impacts			Vegetation management to benefit native animals would have varying impacts. Management by grazing would have minor to major negative impactsm with approximately 115,000 acres grazed for vegetation management. Management by prescribed burns, restoration, would benefit vegetation. Actions to maintain habitat would benefit vegetation. Actions for native ungulates would have general positive impacts, possible localized negative impacts. Water diverted from natural sources would have negative impacts to riparian vegetation. Actions to control exotic animals would benefit vegetation. Grazing would have negative to positive impacts to rare plants, depending on the species.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Wildlife program would have minor to moderate positive or negative impacts. Eliminating livestock grazing and controlled burns as management tools would have a variety of impacts to vegetation (see under grazing and fire) and make habitat management and restoration more difficult. Removing artificial water sources would focus native ungulate impacts on springs and seeps, which could have negative impacts on riparian vegetation. Removing the diversion of water for artificial water sources would be of minor to major benefit to currently impacted springs.	Wildlife program would have minor to moderate negative impacts to vegetation, depending on the location and intensity of grazing. Approximately 60,000 acres would be grazed (2 years out of 10) for San Joaquin Valley core habitat. The highest impact to plants would be under a green season grazing regime. Occasional prescribed fires on 1,000 acres in pronghorn habitat would benefit vegetation	Impacts under Alternative 3 would be similar to, but greater than, under Alternative 2 since much more acreage would be targeted for active vegetation management, primarily grazing.	Water diverted from natural springs and seeps to maintain livestock or wildlife surface water would impact riparian plants and may shrink the size of the natural riparian habitat, but would also benefit riparian plants by relocating livestock and large native ungulate watering sites away from sensitive riparian habitat.
Fire and fuels management program would have positive impacts, but with localized minor to major temporary negative effects due to burning. Firebreaks and control activities would have localized minor to major temporary negative effects. Little to no impacts to rare plants.			Wildfire fire management program would have minor to major positive impacts.
Wildfire management, overall, would have positive impacts to vegetation. Approximately 2 acres of temporary disturbance and 25 acres mowed. No prescribed fires would make restoration and vegetation management efforts more difficult.	Impacts to vegetation from fire and fuels management under Alternative 2 would be the same as under Alternative 1, except more acreage would be affected: 4 acres of habitat disturbance per year; 350 acres per year would be mowed; 500 acres per year of prescribed fires targeting biological resource objectives.	Impacts to vegetation from wildland fire under Alternative 3 would be the same as under Alternative 2, except slightly more acreage would be affected: 5.5 acres of habitat disturbance per year for wildland fire suppression, and 750 acres per year prescribed fires.	Suppression actions (primarily fire lines) would result in 25 acres of temporary disturbance. Wildfire impacts to native vegetation and other vegetation would depend on the location, intensity, and timing of the fire. For shrub and woodland communities, fire would have the potential to be much more damaging.
Lowering dust production would benefit vegetation by minimizing the negative impacts associated with dust.			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
	Roads would not be closed during the dry season to reduce dust, so less benefit.	Lowering dust production by surfacing roads would benefit vegetation.	
Conserving areas of sensitive soils and actions to limit erosion would have minor to moderate positive impacts to vegetation			Conserving soils would provide moderate to major positive impacts Other soil resource actions would have negligible or no impacts
Water program would have minor to major positive impacts to vegetation. Protecting watersheds and surface and subsurface water sources Fencing vulnerable springs and removing nonnative species			
Geology/paleontology program would have some temporary minor to moderate localized negative impacts, but overall have positive impacts to vegetation. Protection of the Monument's geological formations and landforms would have positive impacts.			Geological/paleontological resource actions would have negligible or no impacts, but could have localized negative impacts.
Nonnative plants may be introduced and spread by research equipment, vehicles, and personnel. Temporary disturbance from geology/paleontology research activities.			
Positive impact from closing or restricting public access in areas of sensitive cultural resources. The one-half to one mile of proposed road re-alignments needed to protect cultural resources would result in a small loss of habitat, balanced by the restoration of the closed sections.			Positive impact from closing or restricting public access in areas of sensitive cultural resources.
A small amount of vegetation would be impacted during fence construction, restoration and relocation of farming equipment and structures, and razing and removal of structures. Education activities would be expected to disturb vegetation at eight sites for a total of ½ acre.	A small amount of vegetation would be impacted during fence construction, restoration and relocation of farming equipment and structures, and razing and removal of structures. Slight disturbance from tours and regulated self-guided visits. Education activities would be expected to disturb vegetation for a total of ½ acre.		Small impacts/slight disturbance from fence construction, tours and/or regulated self-guided visits, restoration and relocation of historical farming equipment and structure, and razing and removal of unwanted structures. Weeds may be introduced by cultural activities.
The wilderness resource actions are expected to be beneficial to vegetation by protecting habitat in the Caliente Mountain WSA.			

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td>An additional 65,218 acres of habitat would be protected as lands with wilderness characteristics (in addition to the existing WSA). Due to restrictions associated with wilderness designation, some vegetation management actions may be more difficult to accomplish.</td><td>Beneficial impacts to vegetation by protecting 36,480 acres of habitat as lands with wilderness characteristics. Due to restrictions associated with wilderness designation, some vegetation management actions may be more difficult to accomplish.</td><td colspan="2">The wilderness resource actions would continue management of the existing Caliente Mountain WSA (17,984 acres) to protect wilderness values. This would continue protection of vegetation at current levels.</td></tr>
<tr><td colspan="3">Adjustments to grazing authorizations to meet specific target objectives are expected to benefit native vegetation by lessening the negative impacts of livestock on native plants. Use of the Conservation Target Table, monitoring studies, and other adaptive management tools are expected to result in better and more precise application of vegetation management tools and thus, minimize the negative impacts to vegetation.</td><td>The grazing program would generally have minor to moderate negative impacts. In some areas, there would be localized major negative impacts. Under some situations, grazing would have minor to moderate beneficial impacts to vegetation.
About 58,000 acres would be available for grazing (8 out of 10 years) within Section 15 allotments.
No grazing on 35,000 acres.
Green season grazing would have negative impacts to native annual species, bunchgrass, shrubs, oak trees, and soil crusts.
Grazing that reduces fine fuels may reduce negative impacts by fire.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
The grazing program would have minor to major positive impacts by eliminating grazing's negative impacts on vegetation. Relative to wildfires, removing grazing might have minor to moderate negative impacts to vegetation.	The grazing program would have minor to moderate negative impacts, depending on the location and intensity of grazing: 55,000 acres under Section 15 allotments (average 5 years out of 10); 128,000 acres available to meet specific biological objectives (average 2 out of 10 on 55,000 acres within core areas). 4,000 acres for listed fairy shrimp, 2,000 acres administrative needs; no grazing on 85,000 acres. Some impacts to native vegetation and other vegetation resources, but less than under the No Action Alternative, because less acreage overall would be grazed.	Grazing impacts to native vegetation and other vegetation resources are expected to be highest under Alternative 3: Section 15 allotment grazed 8 years out of 10 (higher than under Alternative 2). Areas outside the core area would be vulnerable to grazing for San Joaquin Valley core species to the possible detriment of native vegetation.	About 55,000 acres would be available for grazing under Section 15 leases and about 115,000 acres would be available for grazing to meet specific biological objectives within vegetation management areas.
The recreation program would have benefits from education. Providing potable water sources would increase local impacts to vegetation, since these areas would experience an increase in visitor use. Potential for disturbance and destruction from activities that would increase public visitation. The publication and dissemination of wildflower viewing information would have some localized impacts due to trampling and picking plants, but would be expected to have an overall benefit to vegetation by supporting the public's appreciation for natural beauty and would help the public to incorporate a feeling of ownership for the Monument.			The recreation program would have benefits from education, but potential for disturbance and destruction.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
The Primitive zone would encompass 83,202 acres, with public access limited to non-motorized and non-mechanized activities, affording the greatest protection to vegetation; however, it would make certain vegetation management tools more difficult to use. Restricting camping to developed facilities within the Frontcountry zone would be expected to benefit vegetation by concentrating visitor impacts to specific easily monitored locations and eliminate many of the problems associated with dispersed camping. Establishing trails should help protect vegetation by directing visitor impacts away from sensitive resources.	The Primitive zone would encompass 54,464 acres. Dispersed camping would be allowed in the Backcountry zone, which would be expected to impact vegetation, depending on the location of campsites and intensity of use (sites with resource damage would be modified or closed, reducing long-term impacts). Establishing trails should help protect vegetation by directing visitor impacts away from sensitive resources.	Impacts to vegetation from Alternative 3 are similar to those from Alternative 2 except that only 17,984 acres would be included in the Primitive zone.	
Dust from road maintenance and use would have a negative effect. Driving on vegetation and changes in hydrological patterns would have negative impacts. Mileage of roads varies with alternative.			
269 miles of roads would be open to the public and 80 miles closed completely. Impacts to vegetation from roads would be reduced in geographic scope.	78 miles of roads would be open to the public and 45 miles closed and allowed to rehabilitate. Impacts to vegetation from roads would be higher than under Alternative 1, but lower than present conditions.	322 miles of roads would be open to the public and 10 miles closed/rehabilitated. Impacts to vegetation from roads would be similar to the No Action Alternative, although the 10 miles of closed roads would revegetated.	
Disturbance associated with oil and gas exploration and extraction would adversely affect native vegetation; however, mitigation measures would help protect sensitive and listed species and other important vegetation.			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
		For actions using vibroseis equipment associated with geophysical exploration, off-road travel with this type of equipment would crush vegetation, compress and disturb soils, and create trails that may encourage illegal OHV activity. Impacts would depend on the location and duration of the geophysical exploration.	
Actions and consequences are the same as those described under the No Action Alternative except that right-of-way actions would result in a loss or degradation of 5 to 30 acres of habitat via disturbance.			Rights-of-way and other realty actions would eliminate a small amount of vegetation in the project footprint and damage adjacent vegetation. Little-used roads may provide nesting habitat for ground-nesting solitary bees (pollinators of native plants). Road construction and orientation could alter water flow patterns, adversely affecting vegetation. Impacts to rare plants would be avoided by mitigation measures. Filming permits may result in temporary disturbance and have the potential to introduce weed seeds. Other realty actions are expected to have negligible or no impacts to vegetation.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Proposed acquisitions would result in an additional 16,000 to 30,000 acres of habitat preserved under public ownership. The impact on specific vegetation resources would depend on what property is acquired. Removal of two communications sites may allow vegetation to reclaim the small areas previously occupied by communications infrastructure.	Proposed acquisitions would result in up to 30,000 additional acres of habitat preserved under public ownership. The benefit to specific vegetation resources would depend on what property is acquired. Modification of two communications sites would not be expected to change impacts to vegetation.		Proposed acquisitions would result in additional acres of habitat preserved under public ownership, with benefits depending on specific property acquired.
Climate change is likely to result in drier conditions for the CPNM, meaning that, overall, there would be less vegetative growth. A change in vegetation zones is also expected. Oak and juniper woodlands would tend to shift to scrublands, scrublands to grasslands, and grasslands to desert-like habitat with significant portions of bare soils or, possibly, biological crusts.			
4.4 Fire and Fuels Management			
Potential major beneficial impact from wildland fire suppression and approximately 1,000 acres burned annually.	Potential major beneficial impact from wildland fire suppression and approximately 500 acres burned annually.		
Minor beneficial impacts to fire ignition hazard from treating up to 25 acres in the immediate vicinity of recreation sites and other facilities.	Moderate beneficial impacts to fire ignition hazard by annual mowing of up to 350 acres along major roadways, in recreation sites, and adjacent to buildings and other facilities.		
There would be no prescribed burning or associated impacts.	Moderate beneficial impact from prescribed burning an average of 1,000 acres every other year.	Moderate beneficial impact from prescribed burning an average of 1,500 acres every other year.	Moderate beneficial impact from prescribed burning an average of 1,000 acres every other year.
Minimal beneficial impacts to hazard fuel reduction from livestock grazing on 4,600 acres.	Moderate beneficial impacts to hazard fuel reduction from livestock grazing on approximately 173,400 acres.		Moderate beneficial to hazard fuel reduction from livestock grazing on up to 170,100 acres.

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td>Authorizes the least amount of dispersed vehicle camping areas, fewest miles of road open to the public and the least amount of recreational facilities development, which reduces the risk of human caused ignitions.</td><td colspan="3">Minimal increased risk of human caused ignitions from retention of dispersed vehicle camping, miles of road open to public use, and development of recreation facilities.</td></tr>
<tr><td colspan="3">No new commercial power lines would be constructed, which is a beneficial impact on fire ignition risk.</td><td>Minimal negative impact to fire ignition hazard from construction of a power line by a commercial utility.</td></tr>
<tr><td colspan="4">Acquisition of private land may provide more flexibility during suppression and may facilitate prescribed burning.</td></tr>
<tr><td colspan="4">The main impacts from the minerals program are risks of human-caused ignitions from work conducted at oil and gas production facilities.</td></tr>
<tr><td colspan="4">4.5 Air Quality</td></tr>
<tr><td>Actions to reduce fugitive dust on main roads would improve air quality.</td><td>Actions to reduce fugitive dust on main roads and install solar panels where feasible would improve air quality.</td><td>Actions to reduce fugitive dust on main roads, install solar panels where feasible, and pave main roads and gravel secondary roads would improve air quality.</td><td>No specific actions proposed. All management would conform to regulations.</td></tr>
<tr><td colspan="3">Minor emissions from pile burning.</td><td rowspan="2">Fire and fuels management would have negligible effects on air quality in the region.</td></tr>
<tr><td>Less aggressive fire suppression could result in greater emissions that may even travel outside of the CPNM from more acres burned by wildfires compared to other alternatives.</td><td>Minor effects to air quality from prescribed burning.
Fire suppression approach could result in fewer emissions from wildfires compared to Alternative 1.</td><td>Minor effects to air quality from prescribed burning.
Fewer emissions from wildfires than Alternatives 1 or 2 due to most aggressive approach to fire suppression.</td></tr>
<tr><td>Decreased ground disturbance from suppression would minimize potential for releasing spores that cause valley fever.</td><td colspan="2">Greater potential for ground disturbance that could release spores that cause valley fever.</td><td></td></tr>
<tr><td colspan="4">Effects to air quality from oil and gas development will be limited in amount and intensity and will have minor impacts.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Likely to have least amount of vehicular travel within the CPNM and therefore the lowest contribution of emissions from fugitive dust and fuel combustion.	Increased amount of vehicular travel within the CPNM and therefore a greater amount of potential emissions from fugitive dust and fuel combustion relative to Alternative 1.	Increased amount of vehicular travel within the CPNM and therefore a greater amount of potential emissions from fuel combustion. However, paving main roads would decrease fugitive dust.	
Least dust due to least amount of authorized grazing, leading to the least amount of travel on dirt roads by permittees and BLM personnel to administer grazing permits.	More dust due to more land available for grazing than under Alternative 1, leading to continued use of dirt roads by permittees and BLM personnel to administer grazing permits.		
4.6 Soils			
The proactive, specific management measures common to all action alternatives will benefit soils.			Less beneficial impact from soils management than action alternatives.
	Somewhat more aggressive approach to soils management promotes greater beneficial effects to soils than Alternative 1.		
Overall beneficial effects from vegetation management actions, but with moderate short-term, localized effects involving some soil loss or loss of soil productivity. Management for core wildlife could expose more soil to wind and water erosion, but species will also have beneficial impacts such as soil mixing and aeration.			Beneficial impacts from biological resources management.

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td>Negative impacts of vegetation management actions on soils would be lowest under Alternative 1, where vegetation management actions would be much more limited.
Reduction of short-term impacts associated with treatments, but long-term benefits associated with restoration of native species could also be the lowest of the alternatives.</td><td colspan="2">Potential impact from vegetation management to physical, chemical, hydrological, and microbial properties of soil, as well as from exposing soil to accelerated erosion in the short term from prescribed fire.
Minor to moderate and short-term to long-term impacts to soil properties from localized spraying of herbicides.
Proactive, protective measures would have long-term, localized to widespread, positive impacts to soils.</td><td></td></tr>
<tr><td colspan="3">Wildfire suppression would be conducted with care to minimize damages to resources, with some protective measures specifically relevant to soil resources.</td><td>With estimated acreage burned by wildfires likely larger than under any of the action alternatives, offers less control over the potentially negative impacts of fire on soils.</td></tr>
<tr><td>Positive impacts from fire to soils would be the result of chance, whereas large-scale moderate to major, short- to long-term negative impacts of wildfire could occur.</td><td>Between Alternatives 1 and 3 in both number of acres of wildfire targeted to burn and number of acres targeted for prescribed fire. Therefore, impacts would also be intermediate.</td><td>Highest degree of control over the potentially negative impacts of fire on soils. Minor to moderate, short- to long-term impacts from active fire suppression methods. Impacts would be highly localized in contrast to the widespread wildfires they would prevent.</td><td></td></tr>
<tr><td colspan="3">Closure and reclamation of unnecessary roads will minimize erosion and exposure to spores that may result in valley fever, with a beneficial effect on soils.</td><td></td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Impacts from air quality actions to minimize dust would be minor and limited to the roads and immediately adjoining areas.	Localized moderate long-term impacts as a result of altering the natural soils of main high-use roadways with aggregate, gravel base, or chemical binder/dust suppressant, potentially resulting in less impact than either Alternative 1 or 3.	Greater and more widespread moderate long-term alteration of the natural soils of roadways and immediately adjoining locations than in Alternatives 1 and 2. The impact is still considered to be minor.	Actions from air quality program to minimize fugitive dust would be beneficial.
Objectives and actions to maintain and improve water quality have positive effects on soils.			Less beneficial impact from water resources management than action alternatives.
Geology/paleontology program is expected to have beneficial effects to soils overall.			Negligible to minor impacts from geology/paleontology based on the small acreage associated with paleontological excavations.
All potential impacts of grazing would be eliminated except on less than 2% of CPNM where fences do not correlate with the Monument boundary. While this would prevent negative impacts of grazing, it would also preclude the positive impacts on soils that could result from using grazing as a vegetation management tool. Removing livestock facilities such as fences and pipelines would potentially involve localized minor short-term impacts.	Livestock grazing impacts would be widespread but negligible to minor and short-term. Livestock grazing could result in localized soil compaction and destruction of biological soil crusts.	Somewhat greater negative impacts from grazing, but still negligible to minor widespread short-term impacts allowable under the Standards for Rangeland Health. Localized, negligible to moderate, short- to long-term impacts to soils could also result from creating, modifying, maintaining, or removing livestock facilities.	Impacts from livestock grazing would be somewhat higher than the action alternatives, but they would still be limited to the minor widespread short-term impacts allowable under the Standards for Rangeland Health.
Recreational uses have the potential to create negligible to moderate localized disturbance and compaction impacts to soils and biological soil crusts. Periodic monitoring and adaptive corrective actions will have a beneficial effect. Some potentially soil-disturbing recreation activities are only allowed in certain Recreation Management Zones, with the size of the zones varying by alternative.			Minor impacts from recreation.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
A total of 83,202 acres (33% of the CPNM) would be designated as Primitive zone, providing maximum protection against any impacts from activities allowed in the Backcountry and Frontcountry zones.	A total of 54,464 acres (22% of the CPNM) would be designated as Primitive zone and thus protected from any impacts from activities allowed in the Backcountry and Frontcountry zones.	Same as Alternative 2 except only 17,984 acres (7% of the CPNM) would be designated as Primitive zone, and a higher number of trailheads and interpretive sites would be provided, resulting in slightly higher impacts.	
Travel management actions common to all alternatives are designed to reduce potential impacts and to offer beneficial effects to soils. Actions to reduce illegal off-road travel will also benefit soils.			Continued illegal vehicle use off of existing roads could cause moderate to major localized impacts from rutting and compaction, although law enforcement actions and education programs may reduce these impacts.
Provides the greatest long-term protection from potential soil disturbance, devegetation, compaction, and erosion by vehicles.	Long-term beneficial effects to soils by closing and rehabilitating roads, with less protection from potential soil disturbance, devegetation, compaction, and erosion by vehicles than Alternative 1, and more than Alternative 3.	Least protection from potential soil disturbance, devegetation, compaction, and erosion by vehicles, but still offers beneficial effects as compared to the No Action Alternative.	
Same as impacts from mineral program as the No Action Alternative, except this alternative increases the potential for implementing actions with positive impacts on soils.	Like Alternative 1, but to a somewhat lesser extent, the minerals program in Alternative 2 promotes the implementation of actions with positive effects on soils.	Includes fewer, and less stringent, protective measures compared to Alternatives 1 and 2.	Overall minor impacts from the minerals program in flat to gentle sloping topography. The impacts may be minor to moderate within the steep slopes of the existing Russell Ranch oilfield.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Opportunistic approach to lands acquisition would bring more land under protective management, and prohibit new communication rights-of-way, preventing any potential localized short-term impacts.	Targeted approach to lands acquisition would potentially bring less land under protective management as compared to Alternative 1, but would still have positive impacts.		Continued acquisition of inholdings would benefit soil management by bringing additional acreage under protective management. Authorizations for rights-of-way would include soil protection stipulations and result in minor localized impacts from surface disturbance for road construction/site expansion.
4.7 Water Resources			
All water resources actions will be beneficial, with effects ranging from short- to long-term, and will be localized, by nature of the resource.			Based on the declaration of a Federal Reserve Water Right in the Monument Proclamation, actions would be implemented under this and all other alternatives to protect water resources.
Measures for protecting biological resources closely associated with surface water are expected to have positive effects on water resources.	Beneficial impacts from protection and restoration of vernal pool vegetation, maintaining natural critical water sources for pronghorn and tule elk, and active efforts to acquire privately held Soda Lake lands. Negligible to minor effects from new water developments for upland game birds, maintaining existing man-made water sources for pronghorn and tule elk, and vegetation management tools.	Same as under Alternative 2 except that Alternative 3 calls for establishing new water sources for pronghorn and tule elk, with potential negligible to minor, localized, long-term effects on water quality and/or quantity depending on the water source used.	Similar impacts from biological resources program as Alternatives 2 and 3.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Fire, especially wildfire, has the potential to create generally short-term but major negative impacts to water quality when ash, eroded soil from newly exposed lands, and other materials enter surface water. Wildfire suppression actions are beneficial to water quality by limiting such sedimentation and water chemistry impacts, if the suppression actions themselves do not negatively impact water quality.			
The "hands-off" / "natural processes" approach of this alternative allows for the most wildfire of all the action alternatives, at a predicted 40,000 acres per decade.	Localized, moderate to major, short-term negative impacts of wildfire would be less likely than under Alternative 1, somewhat more likely than under Alternative 3, but rare under all three alternatives due to the scarcity of surface water and the unlikelihood of fire during the wet season when ephemeral streams flow.	Offers the greatest protection from the rare event of negative impacts of fire on water quality.	Less protection from the negative impacts of fire on water quality due to greater acreages potentially burned by wildfire and prescribed fire.
Objectives and actions that benefit soils have positive effects on water quality whenever and wherever they help protect hydrologic function of soils and prevent erosion of soils into water.	The more active approach to soils management than Alternative 1 would have greater beneficial effects to water quality.	The more active, assertive approach to soils management than both Alternatives 1 and 2 may be expected to have greater beneficial effects to water quality.	Soils objectives are similar to those in the action alternatives but with fewer specific actions than Alternatives 2 and 3, so positive effects on water resources may be slightly less.
Livestock grazing will be assessed and adjusted according to these standards and the associated Guidelines, such that any impacts to water resources would be localized, negligible to minor, and short-term.			
Negligible effects from livestock grazing, and the lowest of all the alternatives.	Localized, negligible to minor, and short-term impacts, with the Central California Standards and Guidelines for Rangeland Health providing overarching protection.		
Visitor education and interpretation actions under this program would be expected to have positive effects. Monitoring recreation impacts to natural resources and measures to correct them would reduce impacts from public use. As visitation numbers are low and not expected to rise steeply, developing potable water sources at facilities such as campgrounds and the education center would have a negligible effect on groundwater quantity.			Under the recreation program, building an understanding among visitors of water resource protection needs would reduce impacts over present levels.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Travel management actions are expected to have positive effects on water resources overall and these effects do not differ appreciably among the action alternatives.			The travel management program would have less beneficial effect on water resources as compared to the action alternatives.
Some minerals extraction activities that may be proposed by lessees in the Monument may use water and would need to be evaluated for their potential to affect quantity and/or quality of groundwater resources. Negligible impacts from minerals program.			
Any new rights-of-way granted and developed would have the potential to affect surface water, although this is highly unlikely, both because of the scarcity of surface water in the Monument and provisions for protecting these sensitive resources.			
Approach to lands acquisition and could result in bringing more surface water and surrounding lands into public ownership, with beneficial effects of increasing water quantity in public ownership, and protecting water quality.	Active approach to acquiring lands with important ecological characteristics would potentially bring more surface water and surrounding lands under protective management as compared to Alternative 1 and the No Action Alternative.		Similar to the action alternatives in its approach to lands acquisition and could result in bringing more surface water and surrounding lands into public ownership, with beneficial effects of increasing water quantity in public ownership, and protecting water quality.
4.8 Global Climate Change			
Oil and gas development and exploration would continue to occur under all alternatives. However, this development is limited to existing leases and private mineral estate, so management of production levels is outside of the discretionary authority of BLM and the RMP.			
Recreational access would result in continued greenhouse gas emissions as Monument visitation increases. However, visitor use levels are based on multiple factors, including travel cost, opportunities for substitute activities and locations, demand for specific settings and benefits, and other factors. As an example, increases could be attributable to Southern California visitors accessing the Monument as a substitute for more distant destinations to reduce fuel consumption.			
Livestock grazing includes the production of greenhouse gas (methane) and would continue at present or reduced levels from present management under each alternative. Alternative 1 would result in the lowest levels of livestock use within the Monument. However, it is assumed that livestock grazing reductions on the Monument would be offset by increases elsewhere in the region, since production is based primarily on public demand.			
Prescribed burns and wildfire would result in the release of greenhouse gasses. However, the regrowth of vegetation would result in renewed carbon storage, and a net balance of zero emissions.			
BLM would continue to convert remaining administrative facilities to alternative renewable energy sources, and the improving mileage of vehicles based on national fleet management policies (outside scope of RMP) resulting in a net reduction of greenhouse gas emissions.			
Continued restoration of native plant communities would improve the carbon storage capability of Monument ecosystems in all alternatives.			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
4.9 Geology/Paleontology			
Information gained from paleontological inventory would be beneficial with no negative impact to fossil formations; however, research strategies would be limited under this alternative.	Same benefits as Alternative 1 with negligible to no impact to fossil formations; however, research strategies would be enhanced under this alternative.		Same as Alternative 1 and 2, except there would be less field inventory under this alternative.
Research associated with the San Andreas Fault, Soda Lake, sag ponds, clay dunes, and other areas of geological interest would be beneficial with no negative impact to the integrity of geological features; however, research strategies would be limited under this alternative.	Same benefits as Alternative 1 with negligible to no impact to the integrity of geological features; however, research strategies would be enhanced under this alternative.		
Prescribed fire and fuels management would have negligible to no impact to geological and paleontological features.			
With less dozer and hand line construction, the potential for minor to major impacts from fire suppression would be slightly lower than the other alternatives.	Higher potential for minor to major impacts than Alternative 1 but less potential for impact than Alternative 3 regarding fire suppression.	Slightly higher potential of minor to major impacts relative to Alternatives 1 and 2 fire suppression.	Emergency fire suppression would result in minor to major impacts.
The action to interpret fossils formations/localities, unique geological landforms, and features in the Caliente and Temblor ranges would be beneficial for public enrichment and would result in negligible or no impact to the resources.			Public tours and self-guided tours to points of seismic/geological interest would have negligible to no impact to these resources.
Negligible to no impacts from recreation developments.			
Closure of archaeological site C06-1 would eliminate inadvertent impacts to the archaeological site associated with the geological formation.			
Negligible to no impact from the minerals program.			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
4.10 Cultural Resources			
Actions implemented under the cultural resources program would range from no negative to beneficial impacts to NRHP-listed or eligible properties.			
El Saucito Ranch interpretive trail would provide public and site preservation benefits.			
Benefit to long-term preservation from stabilizing eight to ten rock art sites being affected by soil/water erosion and shrub abrasion, and three to four NRHP-eligible ranching and farming facilities. Impacts of no intervention of conservation measures to preserve rock art would potentially lead to the partial loss of 17 of the 21 NRHP rock art sites in the Monument. Potential impacts from removing scattered historic machinery and equipment scattered that would require mitigation to resolve.	Beneficial impacts from additional preservation measures.	Similar impacts to Alternative 2. Loss of opportunities to use ineligible removed structures for public education.	
No impact from wildlife management actions. Negligible to moderate impact to Painted Rock and Selby Rock archaeological sites from raptor bird excretions on rock art paintings. Seeding activities requiring earth disturbance on prehistoric resources previously cultivated would result in negligible to minor impact to an already disturbed site from past years of disking. Other vegetation management actions would have no impacts.			Negligible to no impact from introduction of pronghorn and elk. No impact from prescribed burns, grass mowing, and use of herbicides. Potential negligible to moderate impact from livestock grazing to promote the expansion of listed species. No impact from construction of fence exclosures and other infrastructure.

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td>Removal of all artificial water features, livestock fences, trees, human-built structures, or historic guzzlers would potentially impact historic resources that are NRHP-eligible or are listed.
Negligible to moderate impacts from continued raptor nesting at archaeological sites.
No impact from controlling nonnative plants on 10- to 100-acre areas over the life of the plan.</td><td colspan="2">Impacts would be avoided through cultural resource inventory and monitoring procedures.
Negligible to minor impacts from removal and relocation of fences.
Greater potential for seeding impacts due to more acreage.
Temporary impacts in some instances where nonnative plants would be removed from historic and prehistoric properties.
Short-term minor to moderate impacts from eradication of nonnative plants on prehistoric sites.
Similar impacts as Alternative 2.</td><td></td></tr>
<tr><td colspan="3">The intensity of impacts to cultural properties from fire suppression would be the same for all alternatives. However, the potential for impacts to the number of cultural properties that would be affected would potentially increase under each alternative depending on miles of dozer and hand line construction, use of fire retardant, and number of acres involved.</td><td>The intensity of impacts to cultural properties from fire suppression would be the same as the other alternatives. However, the potential for impacts to the number of cultural properties that would be affected would be similar to Alternative 2.</td></tr>
<tr><td>Fire and fuels management impacts would be less under this alternative relative to Alternatives 2 and 3.</td><td>Fire and fuels management impacts would be more than Alternative 1 but less than Alternative 3.</td><td>Fire and fuels management impacts would be more than Alternatives 1 and 2 due to greater focus on suppression.</td><td></td></tr>
<tr><td colspan="3">There would be a range from negligible to moderate impacts to cultural resources in areas that are available to grazing. The adjustment of boundary fences, and modification of grazing authorizations and allotments boundaries are anticipated to have negligible to no impact.</td><td>Negligible to moderate potential for impact from livestock grazing.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Potential impacts from grazing would be eliminated, with negligible to minor impacts from continued grazing along the boundary.	More acres to be grazed than Alternative 1 would have greater impacts, and the intensity of impacts would be negligible to moderate. The closure of Painted Rock Exclusion Zone to livestock grazing would eliminate potential impacts to cultural properties from authorized grazing. Negligible to moderate impacts from livestock grazing to properties in the National Register District and nominated properties.	Grazing would be more frequent, but impacts would be similar to Alternative 2.	
Activities associated with inadvertent disturbance by recreational visitors, unauthorized OHV travel, vandalism, and illegal artifact collection could have minor to moderate impacts, but would be mitigated on a case-by-case basis as they are discovered. Other recreation actions common to all action alternatives would have no impact or beneficial impacts.			Self-guided access to Painted Rock without a permit as well as the total number of visitors to the site annually increases the potential for negligible to minor impacts to the site. Continued closure of the Painted Rock pasture to horses, dogs, non-motorized bikes, cache type activities, and discharge of firearms would minimize impacts. Negligible to moderate impacts to archaeological site (C06-1) from visitors.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Closure of archaeological site (C06-1) on KCL Ranch would eliminate inadvertent impacts.	The impacts to the Primitive zone would be the same as Alternative 1, except there would be less miles of trail. More Backcountry developments would have slightly more potential for impacts than Alternative 1. Frontcountry impacts same as Alternative 1, with some potential minor impacts.	With closure of Painted Rock pasture to many activities, the potential for impact to multiple cultural sites would be similar to Alternative 1. Otherwise, same impacts as Alternative 2, although developments and use would vary.	
Travel management actions would implement standard cultural procedures to inventory, identify, and avoid cultural properties, so negligible to no impact is anticipated.			
Procedures under the minerals program would avoid impacts.			
The prohibition on commercial photography of the rock art images would reduce the risk of site impact. The acquisition of private or state lands would protect cultural resources.			Continued acquisition of lands would have positive benefits. New rights-of-way and permit modifications to bring them in accordance with VRM classification would avoid impacts.
No impacts to cultural resources from lands and realty actions.	Potential beneficial impacts on cultural resources from lands and realty by placing them under public ownership. Fewer acres of land acquisition than Alternative 1. Efforts would be targeted toward lands with significant cultural or biological values.		
4.11 Visual Resources			
Retrofitting existing facilities to meet current VRM classifications would improve the visual quality of the planning area.			Minor to moderate impacts from managing most of the CPNM as VRM Class II except for the Caliente Mountain WSA, a majority of the Temblor Mountain Range, and areas along the border of the Monument.

<table>
<tr><th>Alternative 1</th><th>Alternative 2 (Preferred)</th><th>Alternative 3</th><th>No Action Alternative</th></tr>
<tr><td>Management of the 83,202-acre Primitive zone as VRM Class I, the 158,080-acre Backcountry zone as VRM Class II, and the 17,040-acre Frontcountry zone as VRM Class III would provide the highest level of protection.</td><td>Managing 54,464 acres as VRM Class I, 186,819 acres as VRM Class II, and 20,839 acres as VRM Class III provides for a high level of protection of visual resources.</td><td>Managing 17,984 acres as VRM Class 1, 223,299 acres as VRM Class II, and 24,944 acres as VRM Class III provides for less stringent VRM classifications.</td><td></td></tr>
<tr><td colspan="3">Wildlife program would have negligible or positive impacts with the following exceptions:
Fencing and signing 3 miles of sphinx moth habitat would have a localized moderate impact.
Fencing up to 10 miles of riparian area would result in both positive and negative visual impacts.
Under the vegetation program, fencing 500 acres would cause a minor to moderate visual impact.</td><td>Minor impacts from proposed habitat improvements and vegetation treatments.</td></tr>
<tr><td>Positive effect from removing artificial watering sources and livestock fence.
Removing guzzlers would have a negligible impact.
Minor short-term impacts from removing nonnative plants.</td><td colspan="2">Same impacts from biological resources program as Alternative 1 except:
Major but localized short-term impacts from prescribed burning.
Beneficial impact of removing 20 miles of existing fences and introducing additional pronghorn.
Planting trees for nesting habitat would have minor impacts as long as they are planted in naturally appearing groups.
Minor impact of five new wildlife guzzlers.
Positive impact to native riparian vegetation return by fencing springs.
Minor negative impact to viewshed from fencing springs.
Minor impact of 10-20 miles of new fence to protect oaks.</td><td></td></tr>
<tr><td colspan="3">Wildfire burning on an average of 500 acres a year and the chance of a large fire of 5,000 acres would continue the present level of visual impacts from fires.</td><td>Use of existing natural and human made barriers for fire response will minimize the visual impacts from wildfire suppression. Short-term minor to moderate impacts from prescribed burning and wildfires.</td></tr>
</table>

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Visual impacts from burning would be reduced in frequency from present levels due to no prescribed burns. Construction of dozer line during wildfire suppression could have moderate to major localized impacts. Mowing weeds to reduce fuels around buildings and along roadways would cause negligible impacts.	Same as Alt. 1 for impacts from fire and fuels management program with additional: Minor negative impacts from hand and dozer lines construction for suppression of wildfires. Minor short-term impact from mowing weeds around buildings and facilities, and on and along roads. Potential for minor short-term impacts from pile burning. Moderate to major localized short-term impacts from prescribed fire on up to 1,000 acres of grasslands in alternate years.	Same visual impacts as Alternative 2 except that additional hand and dozer lines could be constructed for more active suppression of wildfires. Moderate to major localized short-term impacts from prescribed fire on up to 1,500 acres of grasslands in alternate years.	
Placement of small interpretive displays would cause negligible visual intrusions.			Minor temporary impact with excavation for geology/paleontology research.
Minor temporary impact with excavation for geology/paleontology research.	Minor impacts from developing interpretive sites. Minor to moderate temporary impact with excavation for geology/paleontology research.		
Cultural resources management actions to realign roads, close or cap roads, and add interpretation at Native American sites could cause some minor impact to visual resources.			Increase in naturally appearing landscapes from removing structures.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Minor visual impact from adding interpretation and educational sites through the life of the plan. Removing farm equipment to centralized locations and demolishing non-historic ranch structures would increase the natural appearance of the Monument.	Moderate localized impact from installing 1.5 miles of fence to protect Painted Rock and exclude livestock. Removing or relocating certain equipment and structures, and preserving some equipment and structures on site would result in an opportunity for Monument users to view a mix of both natural landscapes and historic pastoral landscapes. Adding interpretation and educational displays at historic sites would cause a minor impact to visual resources.	Same cultural resources program impacts as Alternative 2, except that more emphasis would be placed on the preservation and restoration of historic farm machinery and ranch structures.	
Under wilderness/WSA management, converting roads to trails could cause a minor beneficial impact. The removal of unneeded structures would increase the naturalness of the characteristic landscape.			
Associated actions to restore wilderness character would return the visual landscape to naturally appearing conditions.	Managing and restoring wilderness qualities on 54,464 acres would enhance visual resource values in the Class I VRM zone that corresponds to these areas.	Same as Alternative 2, except only the 17,984-acre Caliente WSA would be managed as Class I VRM.	
Realigning the fence lines so that they are along the Monument boundary could cause minor to moderate visual impacts.			The visual landscape on the valley floor would continue to have a pastoral characteristic landscape qualities associated with grazing and support facilities, but those who desire a landscape with natural qualities would be impacted by these same facilities.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Removing livestock would mean many areas of the Monument would change in character from their present pastoral/ranching qualities to a more naturally appearing landscape with fewer human intrusions.	Same impacts as Alternative 1, except that cattle would be less visible on the valley floor. Also, some fences would be realigned over the life of the plan to follow natural terrain features, reducing the visual impacts from present levels.	Same as Alternative 2 except some additional livestock improvements would be placed in the Section 15 allotments. This would result in negligible visual impacts.	
Placing additional directional, safety, and regulatory signing along roadways and other public use locations in the Monument would cause a minor impact. Retrofitting of existing facilities to meet standards for disabled access would have negligible impacts.			Minimal impacts from maintaining existing rustic recreation facilities.
Recreation program would have negligible to minor impacts in Primitive zone, and minor to moderate impacts in Backcountry and Frontcountry zones.	Recreation program would have negligible to minor impacts in Primitive zone, and minor to moderate impacts in Backcountry and Frontcountry zones.	Same as Alternative 2 except that additional interpretive signing, trails, overlooks and other public use improvements would be placed in the Frontcountry and Backcountry Zones. These would only increase the level of impact by a minor level.	
Closing 81 miles of roads and rehabilitation or natural revegetation of these routes would result in a major long-term enhancement of the natural characteristic landscape.	Closing 45 miles of roads and rehabilitation or natural revegetation of these routes would result in a major long-term enhancement of the natural characteristic landscape.	Closing 10 miles of roads and rehabilitation or natural revegetation of these routes would result in a minor enhancement of the natural characteristic landscape.	The existing road system would be maintained at current standards, resulting in no new impacts. Additional safety, directional, and regulatory signing would result in minor visual impacts.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Same as No Action alternative except that BLM would work with existing leaseholders to mitigate existing visual impacts, which would result in minor improvements to visual resources. Geophysical exploration would be the most limited among the alternatives, but restrictions would still need to enable private mineral estate holders to explore in a reasonable fashion.		Same as Alternative 1 except existing leaseholders and private mineral estate owners could cause short-term impacts from the allowed use of vibroseis for exploration, primarily on existing roads, with some off-road use.	The seismic lines would result in minor to moderate temporary impacts to visual resource values and would only be visible until the first growing season after the disturbance. The development of wells and associated roads/structures would result in moderate to major visual impacts within foreground and middle ground viewing distances.
The 5 minor rights-of–way anticipated for administrative purposes and the 10 rights-of-way anticipated for scientific monitoring could have a negligible to minor impact. Land use permits such as filming permits will have a negligible impact. The survey and documenting of the Monument boundary would cause minor impact to visual resources.			Additional authorization of rights-of-way for communication sites would result in moderate impacts.
Acquiring 16,000 – 32,000 acres of private land would enhance visual resources. Acquiring 0 – 40,000 acres of mineral rights would enhance visual values. Removing 2 communication facilities upon lease expiration would result in negligible to minor enhancement of visual qualities.	Land acquisition would be targeted in areas with biological and cultural resource values, resulting in less acreage acquired, and therefore less protection of visual resources than Alternative 1. There would still be a net benefit over present conditions. Acquiring mineral rights would provide a minor to major benefit. Adding facilities to 2 communication structures would have a negligible impact.	Land acquisition impacts would be the same as Alternative 2. Up to two additional communication sites could be developed, with minor to moderate visual impacts.	Acquiring additional lands would enhance visual values.
4.12 WSA and Other Lands with Wilderness Characteristics			
No impacts from the WSA/wilderness program.			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
This greatest acreage of the planning area would be managed for wilderness character of all the alternatives.			
Same vegetation program impacts as No Action Alternative (except for additional acreage).			Positive long-term impact from removing nonnative or noxious weeds.
Acquisition and restoration of the historic World War II lookout tower on Caliente Peak would result in a minor impact to naturalness within the WSA by retaining/stabilizing the structure.			
Removing non-NRHP-eligible manmade structures would have a localized beneficial impact by improving naturalness.			
			Continued management of the Caliente Mountain WSA as VRM Class I would help minimize impacts.
Cache activities could have a minor impact on wilderness qualities. The placement of low-key directional signs for the safety of visitors would have a minor impact on wilderness character.			Continued public use of the Caliente Peak Trail would result in negligible impacts.
Developing 5 – 35 miles of trails within the Primitive zone could have a moderate impact.	Developing 5 – 25 miles of trails within the Primitive zone could have a minor to moderate impact.	Developing 5 – 15 miles of trails within the WSA could have a minor to moderate impact.	
The removal of grazing would increase naturalness.	Impacts from grazing would be negligible/minor and mainly associated with reconstruction / maintenance of range improvements.		
Limited use roads located within the WSA and areas with wilderness characteristics would have a negligible to minor localized impact.			
Closing and rehabilitating the majority of the road network within the 65,218 acres to be managed for wilderness character would enhance wilderness character.	Closing and rehabilitating the majority of the road network within the 36,480 acres to be managed for wilderness character would enhance wilderness character.		

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Acquiring lands within the Primitive zone could cause a minor to moderate impact.			
4.14 Livestock Grazing			
Moderate negative effects depending on the level of implementation for access restrictions within Primitive recreation management zones.			Minor impacts within Section 15 allotments from continuation of current management. Moderate impacts within vegetation management areas from growing limitations placed upon their grazing use.
Negligible impacts from all program actions common to all alternatives.			
	Major negative impacts to certain individual livestock operations from the actions to implement core area objectives.		
Major negative impact within both Section 15 and vegetation management allotments either entirely or partially within the Monument.	Major negative impacts within Section 15 allotments from actions to implement vegetation objectives. Major negative impacts within vegetation management areas from actions to implement both wildlife and vegetation objectives.	Minor negative impacts within Section 15 allotments. Major negative impacts within vegetation management areas from actions to implement both wildlife and vegetation objectives.	

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
4.14 Recreation and Administrative Facilities			
This alternative would result in the greatest change in management of the recreation settings, with a major overall impact on recreational use, both in numbers of recreation users and allowable uses within this zone. Primitive zone major impacts would be felt primarily by hunters through the loss of vehicle, OHV, or bicycle access and vehicle camping. Prohibiting camping in the Backcountry zone would likely result in an overflowing campground occupancy in the Frontcountry during peak times of the year, which would also be minorly impacted from no competitive events.	Changes in Primitive zone acreages would have minor localized impacts to hunters and motorized users. In the Backcountry, this alternative would better reflect the current recreational uses, potentially having a minor impact on motorized recreation users. Impact on non-motorized recreation activities would likely be negligible.	This alternative would place the most recreational facilities within the Backcountry zone. However, the amount of change from current use would also be the lowest of the action alternatives, with a negligible impact to the recreation resource. In the Frontcountry, new developments and recreation opportunities could improve the overall experience, with a moderate impact on current recreation use.	Recreational opportunities would be similar to those currently offered. Acres and road miles and trails would be managed in a similar manner to that proposed in Alternative 3. Use levels are expected to grow to approximately 124,000 visitor days per year under this alternative – use levels would be higher than Alternatives 1 and 2 because management controls (such as permits for Painted Rock) would not be put into effect.
The acquisition of land would have a moderate impact in expanding recreation access opportunities.	Impacts to the recreation resource would be similar to Alternative 1, except less private land acreage may be acquired.		Lands would continue to be acquired from willing sellers, increasing the acreage available for public recreation.
Impacts of wildfire to the recreation resource during and immediately after a wildfire could be moderate to major in the short-term, depending on the amount of time of public closure of areas. In the long term, wildfire is estimated to have a negligible impact on recreation. Prescribed burning in the No Action Alternative, as well as Alternatives 2 and 3, would have short-term negligible impacts to recreation use.			
Climate change models indicate that the planning area will become warmer and drier over the life of the RMP. This could impact recreation use by reducing the frequency and intensity of spring wildflower blooms, and changing the use/populations of wildlife species that are major attractions for recreation visitors. The peak public use period is already primarily in the winter-spring months, but could be shortened by higher temperatures.			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Wildlife program impacts could be minor to moderate depending on the level of population fluctuations.	Wildlife and vegetation program impacts would enhance recreation opportunities.		Wildlife and vegetation program actions would have a negligible impact.
Same impacts from minerals program as No Action Alternative.		Overall impact of oil and gas development on private mineral estate to the recreation resource could be moderate or major. Impacts from continued development of the Russell Ranch unit would be minor. This area is away from the main public use areas in the Monument and receives minimal visitation.	
Impacts from geology/paleontology would be negligible.			Impact from geology/paleontology program would be minor.
Closure of Painted Rock would have a major impact for visitors interested in it. Closure of site C06-1 would have a minor impact. Structure and facility removal actions could impact visitors, depending on their interests.	Negligible impact from permit requirements. Positive recreation benefits from rock art protection measures. Minor impact from removal of historic machinery and equipment.	The actions proposed in this alternative are likely most similar to the existing condition when compared to the other action alternatives and should result in a negligible impact on recreation.	Allowing increased use at Painted Rock and other cultural resource sites could eventually reduce the quality of the recreation experience, potentially having a minor impact on the recreation resource.
Allowing only street-licensed vehicles and prohibiting most other OHVs, and closing roads, would potentially having a moderate to major impact on this recreational activity, which would be positive or negative depending on visitor interests.	Travel management impacts are expected to be negligible.	Has largest number of miles of roads available for public motorized use. The impacts to existing use would be negligible since none of the closed roads access major attractions/recreation opportunities.	Negligible impact from travel management program.
The impacts associated with WSA/wilderness management actions would be similar to that identified under Recreation within the Primitive Zone.		No impact.	Negligible impact from WSA/wilderness program.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
This alternative includes the most restrictive VRM management zones. Recreation opportunities would be enhanced for those seeking settings with the highest level of naturalness.	This alternative would result in impacts similar to Alternative 1, except less acreage would be managed under VRM Class I criteria, allowing for slightly higher impacts to natural recreation settings.	This alternative would result in impacts similar to Alternatives 1 and 2, except less acreage would be managed under VRM Class I criteria, allowing for slightly higher impacts to natural recreation settings.	Recreation opportunities could be impacted at moderate levels for those seeking settings with the highest level of naturalness.
Removal of grazing and associated developments would improve the natural appearance of the area and enhance the setting for visitors who are seeking a natural experience.	Grazing would continue at reduced levels resulting with a negligible change in impacts. Those visitors who are seeking a natural experience without the presence of livestock and associated developments would continue to be impacted at present levels.		Grazing would continue at present levels resulting with no increase in impacts. Those visitors who are seeking a natural experience would continue to be impacted at present levels.
4.15 Travel Management			
Proposed management actions would reduce impacts to the transportation system. Seasonal and wet-period closures could have a negligible to minor impact on use of the travel network.			No impacts from travel management program on current travel management.
Mileage reduction of the road network will have minor to moderate impacts on the transportation system.	The increase in limited mileage could have a minor to moderate impact to the travel network because there would be fewer miles open to public motorized use.	This would also have the fewest number of roads that will be closed and rehabilitated. This could cause a moderate impact to the travel network.	
			Prescribed burning and wildfire suppression would have a minor impact.
Minimizing dust emissions on roads would cause minor to moderate impacts to the travel management program.			Air quality program objectives to reduce dust emissions from roads could result in minor impacts to the methods/timing of road maintenance activities.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
The seasonal closure of roads without dust suppression additives could cause a major impact.	The use of aggregate, gravel base or a chemical binder on high use roads, especially around rock art sites, would cause a moderate impact to the transportation network.	Paving major travel routes and graveling the key secondary routes could indirectly impact transportation because of the increases in vehicle speeds on paved and graded gravel route segments.	The rerouting or capping of roads that traverse cultural sites could cause a negligible impact.
Several limited use administrative routes with restricted access would remain open in areas managed for wilderness character. This would reduce use of these road corridors.	Same as Alternative 1, except that less acreage/road mileage would be affected.	No impacts from WSA/wilderness management.	
Implementing a sign plan would benefit the transportation network. Developing multiple driving tours within the Monument would increase use of certain roads resulting in a minor to moderate impact to the maintenance or the travel network.			Minor impacts from recreation program due to increased use of area roads over the life of the plan.
Development of 5 – 35 miles of trails could have a moderate impact on the travel network. Eliminating dispersed vehicle camping could reduce use and maintenance needs of the travel network. Additional recreation / educational opportunity sites would increase the number of travelers on certain roads.	Development of 5 – 25 miles of trails could have a moderate impact on the travel network. If modifications are made to the dispersed camping areas, there could be an increase in use of the more developed dispersed camping areas, resulting in a minor impact to the roads that lead to them.	Same as Alternative 2 except 5 – 15 miles of new trail would be developed, resulting in a slightly smaller expansion of the trail system.	
The acquisition of lands could cause a minor to moderate impact.	Same as Alternative 1 but with less acreage acquired and fewer miles of roads to reassess.		Acquisitions could increase the road mileage in the transportation system.
Same mineral program impacts as No Action Alternative.			Under the minerals program, the development of existing leases would cause negligible to minor impacts.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
		The soils management action for seasonal closure of all roads when they develop a 2-inch rut could cause a major impact on the travel network.	
4.16 Minerals			
Valley floor area: Up to 16 new wells, plus roads and facilities, and 230 miles of seismic, with all development on private minerals, federal surface. Up to 18 acres of permanent (2-3+ years), 12 acres of temporary (<2 years), and 115 acres of transient disturbance (such as one or two passes of a vehicle off-road that may be visible until the following season). Russell Ranch Unit oil and gas lease areas: Current federal production in Monument approximately 1,200 – 1,500 barrels of oil per month from 45 wells (including 30 shut-in) Up to 7 new wells plus roads and 25 miles of seismic Up to 5.25 acres of new permanent disturbance (2-3+ years), 1.25 acres of temporary (<2 years), and 25 acres of transient disturbance Within the next 20 years, many shut-in wells will be plugged and the well pads and other disturbed areas would be reclaimed. Protective stipulations and best management practices will minimize any impacts from exploration and development. Minimal impact from a potential site for emergency/administrative sand/gravel extraction.			
Quickest reclamation but also most expensive for both operators and BLM, compared to the other alternatives	Most impacts same as Alternative 1, except: Fewer onsite inspections, but still exceed national guidelines. Faster compliance. Slower reclamation, but still faster than national guidelines.	Most impacts, from using only standard national guidelines and mitigation requirements. Potential minor vibroseis impacts. Longest timeframe for restoring disturbed sites of existing operations.	
Endangered Species Act and other wildlife laws and regulations cause frequently substantial delays Some surface-disturbing operations could be restricted or prohibited.			
Protection of surface and groundwater may have additional costs for operators.			
Potentially require moving or delaying projects to comply with BLM cultural resources protection requirements			
Operators would be required to comply with VRM objectives to the extent practical while still allowing for reasonable development. Oil developments would continue to occur in Class II VRM Zones, potentially requiring substantial mitigating measures to future developments to meet VRM classifications consistent with valid existing rights (oil developments are typically VRM Class III and IV).			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
In general, oil and gas is compatible with grazing. However, operators may be required to install fencing around pumping units or other equipment, install cattle guards, or take other protective measures.			
Delays in obtaining rights-of-way for certain proposed operations may result in a delay in authorization to proceed. Other impacts, such as land tenure adjustment, may affect operations. Also, any acquisition would include reimbursement at appraised values.			
4.17 Lands and Realty			
Over the life of the plan, BLM would acquire approximately 16,000 to 32,000 acres of land through purchase, exchange, donation, or friendly condemnation. 0 to 40,000 acres of privately owned mineral estate may be acquired from willing sellers.	These alternatives would result in the acquisition of less acreage than Alternative 1, but acquired lands would be targeted toward meeting priority habitat protection needs.		BLM could acquire approximately 16,000 to 32,000 acres of land through purchase, exchange, donation, or friendly condemnation. 0 to 40,000 acres of privately owned mineral estate may be acquired from willing sellers. Land tenure adjustments would focus on acquisition of non-federal lands within the Monument and generally would generally be driven by availability of lands. In addition, BLM may pursue acquisition of non-federal mineral estate underlying federal surface holdings.
No new communication sites would be authorized. Approximately 2 sites would be removed as authorizations expire.	No new communication sites would be authorized, with potential for minor impacts. Approximately 2 sites could be modified to allow for additional facilities in accordance with VRM classifications. This would allow for limited expansion/improvement of service to on-Monument locations, and reduced impacts compared to Alternative 1.	Up to 2 new communication sites could be authorized. The existing 2 sites could be expanded, in accordance with VRM classifications. This is the least restrictive of the alternatives and would have negligible impacts on applicants' ability to construct, expand, or modify communication facilities.	Up to 2 new communication sites could be authorized. The existing 2 sites could be expanded.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Most rights-of-way and permits for inholder access would be in VRM Class II areas. This may require modifications / limitations on development, therefore increasing the costs to the applicant.	Most rights-of-way and permits for inholder access would be in the VRM Class II areas. This could require modifications / limitations on development, increasing costs to the applicants. New communication facilities would need to meet Class II criteria, which could limit location, height and require other modifications to reduce visual impact.	The impacts are similar to Alternative 2. Most rights-of-way and permits for inholder access would be in the Class II zone. This could require modifications / limitations on development, increasing costs to the applicants.	Much of the Monument would be managed under VRM Class II, with areas of Class III in the Temblors and Class IV along the CPNM boundary. This would require some design modifications on right-of-way authorizations to minimize visual impacts, but would not preclude any authorizations.
There are 83,302 acres with Wilderness character and in the Primitive recreation zone. Issuing rights-of-way or permits for inholder access in this zone would require additional stipulations.	There are 54,464 acres with Wilderness character and in the Primitive recreation zone. BLM would still allow reasonable access, but applicants would need to demonstrate the need for motorized access and additional stipulations for right-of-way or permit issuance may be required. Additional stipulations may include reroute or relocating the access area. This may have minimal to moderate impact to the applicant.		
In the minerals program, BLM would require that diligent efforts be made to use existing roads and rights-of-way, and to minimize disturbance to Monument resources wherever possible. All pipelines, whether production or for water supply, would be required to be run in road rights-of-way, thereby creating no additional disturbance. These requirements would impact the owners of mineral resources, but would be considered reasonable to prevent unnecessary and undue degradation to the objects of the Monument Proclamation.			
4.18 Social and Economic Conditions			
Moderate to major beneficial impacts to socio-economic context and values from management of wildlife and vegetation to preserve CPNM character. Potential minor restrictions to some users. Overall benefits considered beneficial.			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Wildlife and vegetation program has greatest potential for adverse impacts to regional quality of life; overall minor to moderate impacts.	Most beneficial of all alternatives to preserve non-market values.	Similar to Alternative 2	Same or similar to current conditions.
Minor to moderate short-term impacts from fire and fuels management; overall beneficial impacts in long-term. Potential for minor access restrictions to some users during fire management activities.			
Impacts from fire and fuels management to natural resources may vary depending on fire conditions. Emphasis on natural processes may increase duration of natural fire events. Overall minor impacts.	Potential use restrictions during active fire management activities. Includes most varied range of wildland fire management practices. Reduces potential for economic losses due to fire. Potentially reduced air quality impacts to the benefit of region and communities of interest.		Similar to all action alternatives, and closest to Alternatives 2 and 3.
Air quality program would have overall beneficial impacts to social and economic context and communities from preservation of air quality and CPNM character and values.			
Potential for longer-term road closures impacting frequent CPNM travelers. May generate some, albeit minor, local/regional economic benefit to contractors.	Potential minor benefit to local contractors. Benefits visitors and sensitive resources through active protection from fugitive dust.		
Soils management would have potential indirect benefits to land values and incomes in the region from enhanced understanding of soil functions and values.	Most aggressive soils management approach and user education; potential impacts to ranchers and farmers, if they occur, greater than Alternative 1.		Same or similar to existing conditions.

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Water resources management actions would have overall beneficial impacts, moderate in the short-term to major over the long-term given the proposed removal of invasive non-natives and use of native plants in wetland areas. Measures that protect and preserve the overall character and resources of the Monument benefit localized and regional social and economic context. Impacts same or similar for all action alternatives. No new impacts from No Action Alternative from current conditions.			
Geology/paleontology program impacts would be similar to other natural resources management issues; overall moderate to major benefit to social and economic context from preservation and protection of sensitive resources, expanded educational opportunities.			
Geology/paleontology program would have potential access restrictions to CPNM visitors, although overall minor. Beneficial impacts to the resources.	Potential beneficial impacts to sensitive cultural resources and expanded knowledge and educational opportunities to visitors.		Same as or similar to existing management.
Cultural resources program would have overall moderate to major beneficial impacts to social and economic context; benefits Native American community of interest as well as visitors and others through preservation of sensitive resources and expanded educational opportunities.			
Cultural resources program prohibits visitor access to Painted rock. No intervention to prevent natural deterioration of rock art sites. Most restrictive to public access to cultural resources. Potential adverse impacts to local economies from decreased tourism.	Cultural resources program impacts are similar to geological/paleontological program impacts. Provides for greatest access to resources and active preservation/restoration.		Same as or similar to existing management.
Impacts of visual resources program are similar to impacts associated with air quality; preservation of scenic and visual resources intrinsic to CPNM character provides overall beneficial impacts ranging from moderate to major. Impacts similar for all alternatives, differing in term of percentages of land designated Class I & II.			
Livestock grazing would have overall minor to moderate beneficial impacts to communities of interest and non-market values; negligible impact to some communities of interest.			

Alternative 1	Alternative 2 (Preferred)	Alternative 3	No Action Alternative
Impacts from no livestock grazing: Net decrease in grazing fees to the county in which the allotments are reduced. Section 15 lease values in the CPNM decrease to $14,451 (compared to $132,964 under current management). Eliminates free use grazing and associated revenues to Grazing Facility Fund.	Grazing would have a net beneficial impact on Monument visitorship. Section 15 lease values in the CPNM decrease to $121,614 (compared to $132,964 under current management). Potential minor impact to free use grazing permit contributions.		Potential future impacts similar to continuing existing management practices.
Recreation program's overall impacts would be beneficial to non-market values and communities of interest such as Monument visitors. Potentially major benefits over the long-term.			
Focuses camping near developed sites, potentially impacting some visitors who prefer to camp away from those sites.	Potential impacts to varmint hunters through elimination of that activity. Similar to other alternatives; differs in terms of allocation of acreage to various recreation management zones.		Same or similar to existing conditions.
Administrative/facilities management would have minor impacts to social and economic context for all alternatives.			
Minerals program would have minor to moderate impacts to mineral estates lessees and owners over the short term. Negligible to minor impacts to communities of place.			
Beneficial impacts to Monument resources and potential benefits to private land/mineral estates owners in CPNM through facilitation of property transfer. Potential benefits to Monument visitors through increased access to lands previously inaccessible due to ownership. Potential enhancement of non-market values through public land acquisition of lands on which resources exist, and greater protection of those resources.			

This page deliberately left blank.