

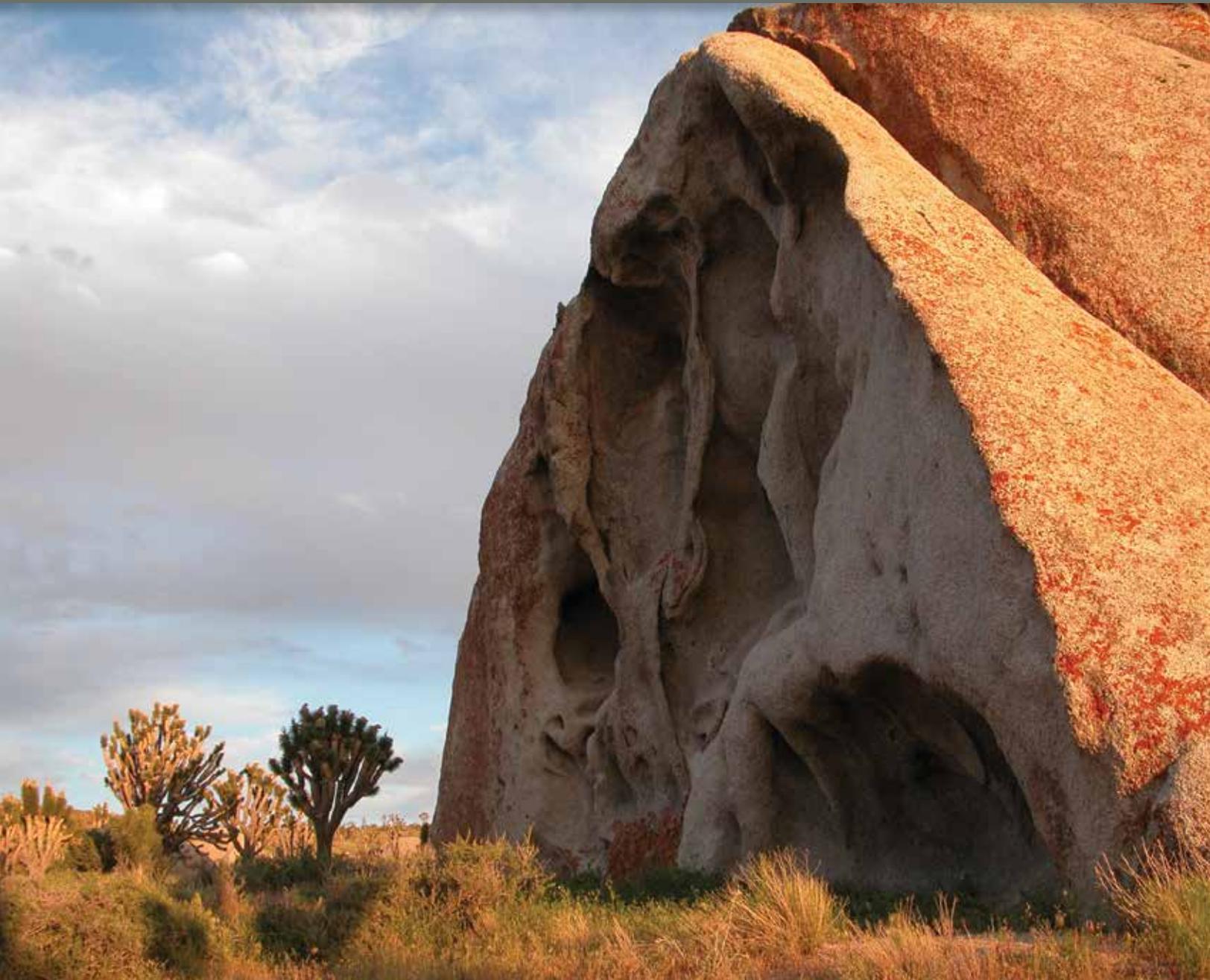


Foundation Document

Mojave National Preserve

California

June 2013



Location of Mojave National Preserve



Note: additional maps of the preserve are available at: insideparkatlas.nps.gov

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Introduction

Every unit of the national park system needs a formal statement of its core mission to provide basic guidance for all planning and management decisions: a foundation for planning and management. Increasing emphasis on government accountability and the necessity for restrained federal spending make it imperative that all stakeholders understand the park unit's purpose, significance, interpretive themes, fundamental resources and values, and special mandates and administrative commitments, as well as legal and policy requirements for administration and resource protection.

The primary advantage of developing and adopting a foundation document for Mojave National Preserve is the opportunity to integrate and coordinate all kinds and levels of planning and decision making from a single, shared understanding of what is most important about the preserve. The process of preparing a foundation document helps managers, staff, and stakeholders develop or affirm an understanding of what is most important about the preserve and identify the additional information needed to plan for the future.

The foundation document can be used in all aspects of management to ensure that the most important management objectives are accomplished before addressing other items that are also important but may not be directly critical to achieving the preserve purpose and maintaining its significance. Thus, the development of a foundation document for Mojave National Preserve is essential for effectively managing the preserve over the long term and protecting the resources and values that are integral to its purpose and identity.

This foundation document was developed as a joint effort between preserve staff, the Denver Service Center (DSC) Planning Division, and the NPS Pacific West Region. A workshop to facilitate this process was held on May 8–10, 2012 at the headquarters of Mojave National Preserve in Barstow, California. A complete list of consultants and preparers is included in part 3 of this document.

The park atlas is also a part of the foundation project. It is a geographic information system (GIS) product that can be published as a paper atlas and as electronic geospatial data in a Web-mapping environment. The purpose of the park atlas is to serve as a GIS-based support planning tool for planning and park operations. The atlas covers geographic elements that are important for management such as natural and cultural resources, visitor use patterns, and facilities. It can be developed as part of a planning project (e.g., general management plan, foundation document), although it can also be designed as an independent product. The park atlas is available at <http://insideparkatlas.nps.gov/>.

Part 1: Core Components

All foundation documents include the following core elements:

The ***purpose*** is the specific reason(s) for establishing a particular park unit. A purpose statement is grounded in a thorough analysis of the preserve legislation (or executive order) and legislative history, and may include information from studies that were generated prior to the establishment of the preserve. The purpose statement goes beyond a restatement of the law to document shared assumptions about what the law means in terms specific to the preserve.

The ***significance*** statements express why the preserve’s resources and values are important enough to warrant designation as a national preserve. Statements of significance describe why an area is important within a global, national, regional, and systemwide context. Significance statements are directly linked to the purpose of the preserve and are substantiated by data or consensus that reflect the most current scientific or scholarly inquiry and cultural perceptions, which may have changed since the preserve’s establishment.

Interpretive themes connect preserve resources to relevant ideas, meanings, concepts, contexts, beliefs, and values. They support the desired interpretive outcome of increasing visitor understanding and appreciation of the significance of preserve resources. In other words, they are the most important messages to be communicated to the public about the park unit. Interpretive themes are based on the preserve’s purpose and significance.

Fundamental resources and values are features, systems, organisms, processes, visitor experiences, stories, scenes, sounds, smells, or other attributes of the preserve determined to warrant primary consideration during planning and management because they are critical to achieving the preserve’s purpose and maintaining its significance.



Brief Description of the Preserve

On October 31, 1994, Congress passed the California Desert Protection Act, which established Mojave National Preserve. At 1.6 million acres, it is the third-largest unit of the national park system in the contiguous United States. The preserve is an expanse of desert lands that represents a mosaic of three of the four major North American deserts: the Great Basin, Sonoran, and Mojave. The remoteness, the vast open spaces, and near-pristine vistas instill a sense of discovery in visitors. Here they can experience a wide variety of historical and natural features that exist nowhere else in the United States in such proximity to one another.

Located in southern California, Mojave National Preserve is bounded to the north and south by major interstate highways, I-15 and I-40. The Nevada-California state line comprises most of the eastern boundary. Mojave is just a four-hour drive from Los Angeles, and a 90-minute drive from Las Vegas. Death Valley National Park lies to the north, Joshua Tree National Park to the south, and Lake Mead National Recreation Area to the east. Due to its relative proximity to urban centers and attractions, it is an area that many people have seen through their windshields, although relatively few have taken time to explore. Mojave National Preserve headquarters are located in Barstow, 60 miles from the western boundary of the preserve.

In addition to the proximity of Mojave National Preserve to other national park units, it is immediately surrounded by public lands managed by the Bureau of Land Management (BLM), which opens doors for cooperative resource management. The Bureau of Land Management also manages two nearby sites: Amboy Crater National Natural Landmark and Afton Canyon Natural Area. Providence Mountain State Recreation Area (Mitchell Caverns) and the University of California's Sweeney Granite Mountains Desert Research Center are within the preserve boundaries, while San Bernardino County Regional Parks manages the proximate Calico Ghost Town. Lastly, California State University, Desert Studies Center at Soda Springs (now called Zzyzx) is an education and research facility on NPS land within the preserve.

The preserve is a land of mountain ranges, sand dunes, creosote flats, great mesas, extinct volcanoes, and other desert landforms. The most prominent geological features include Cima Dome, the Cinder Cones, and the Kelso Dunes. Ancient rocks that date back 2.5 billion years have been discovered in the Clark Mountains. This is basin and range country, with mountain ranges rising abruptly from the desert floor. Many of these desert flatlands are basins, which—unlike valleys—are not drained by rivers.

Mojave National Preserve protects an extensive variety of habitats and species unique to the Mojave Desert and is one of the best places to experience this ecosystem. Numerous seeps and springs coupled with varied elevations and soil types create microhabitats that support a diverse mosaic of plant and animal life. All of the plants and animals here must be resilient and well-adapted to thrive in harsh desert conditions. Cactus gardens, relict plant communities of white fir and chaparral, and one of the most significant Joshua tree populations in the world are all found here. About half of Mojave's acreage is designated as critical habitat for the federally listed threatened desert tortoise.

Temperatures and rainfall amounts vary considerably over the range in elevation from 7,929 feet at Clark Mountain to 880 feet near Baker. Temperatures tend to the extremes, from an average maximum temperature of 110°F in July near Baker to below freezing in the winter, where the elevated Mojave Desert is sometimes blanketed in snow. Elevation affects temperatures and influences precipitation. The higher elevations receive an average in excess of 11 inches of precipitation annually, while near Baker precipitation averages are close to 4 inches per year. Most precipitation falls during the winter, but a second peak of precipitation occurs during the summer months of July, August, and September. Summer thunderstorms, driven by monsoon heat and humidity, produce an average of nearly one-third of the total annual precipitation.

Long-term average conditions are likely to become less relevant in the future as a consequence of climate change. There have been significant temperature increases during the 20th century and the expectation of continued warming trends will lead to increased evaporation of already scarce water resources. Most climate models suggest a drying trend for the 21st century, with increasing variability in precipitation from year to year. More variability combined with a gradually decreasing average precipitation level will add stress to an ecosystem where many species already live near the extremes of physiological tolerance.

Of the preserve's 1.6 million acres, just under 50% (695,200 acres) are designated wilderness. The National Park Service manages the wilderness in accordance with the Wilderness Act, the California Desert Protection Act, and other laws that protect cultural and historic sites in the wilderness. In Mojave Wilderness, natural processes are unrestrained and direct human impacts on the rich biodiversity so critical to the area's ecological health are minimized. Wilderness visitors will find outstanding opportunities for self-reliant, challenging recreational experiences. The Mojave Wilderness is bordered by the BLM's Kelso Dunes Wilderness Area and Bristol Mountains Wilderness Area to the west.

The natural soundscape, clear night skies, and clean air of the Mojave Wilderness and most other areas of the preserve provide a refuge from a fast-paced, technology-driven society and from increasing urbanization. It is a place to reconnect with the land and seek quiet and contemplation. Visitors can pursue ample opportunities for outdoor desert recreation, including hiking, nature study, camping, and hunting.

The cultural history of the Mojave Desert region is equally notable. The Mojave Desert has a vibrant history; among the Joshua trees and rocky outcrops lie the remnants of an exciting and intriguing past. Evidence of early human uses includes archeological sites possibly dating back 10,000 years. Projectile points, pestles, pottery sherds, and petroglyphs all relay stories of the Mojave, Chemehuevi, and Paiute—the preserve protects numerous sites that provide evidence of how early inhabitants of the Mojave Desert were dispersed across the landscape and how their lifeways changed in response to a changing environment. These lands also served as an important transportation corridor and trade route, connecting the coastal tribes with tribes along the Colorado River and points east.

Numerous historic sites from early ranching, homesteading, and railroading ventures serve as reminders of the courageous and resilient people who opened the western frontier, and hundreds of abandoned mines evoke images of the boom and bust cycles that were a part of trying to strike it rich in the Old West. During the late 19th and early 20th centuries, railroads were constructed across this historic transportation corridor; now, modern interstate highways traverse the area. The Kelso Depot Visitor Center is a reminder of the early 20th century railroading heyday of great steam locomotives and construction of transcontinental railroads across the Mojave Desert. The collection of buildings at Soda Springs also has a remarkably interesting tale to tell of Curtis H. Springer, the eccentric man who conceived and built the enclave. These two features and many more, such as Fort Piute, Government Holes, and Ivanpah town sites, add to the rich history of the preserve.

Collectively, Mojave National Preserve protects an immense expanse of relatively intact desert ecosystem and a diverse assemblage of cultural resources, while also providing a wide variety of experiences and opportunities for the public to explore and enjoy the Mojave Desert.



Purpose

Purpose statements identify the specific reason for the creation of a particular national park system unit. Purpose statements are crafted through careful analysis of the enabling legislation and the legislative history that molded the development of the park system unit. Mojave National Preserve was founded in 1994 when the preserve's initial enabling legislation was passed and signed into law (see appendix A for enabling legislation and subsequent amendments). The purpose statement reinforces the foundation for future preserve management administration and use decisions. Preserve staff developed the following purpose statement based on the review of the enabling legislation and previous management documents:

Mojave National Preserve protects a diverse mosaic of desert ecological communities and functions, and evidence of a 10,000-year history of human connection with the desert. By offering extensive opportunities to experience a wide variety of desert landscapes, the preserve promotes understanding and appreciation for the increasingly threatened resources of the Mojave Desert, and encourages a sense of discovery and connection to wild places.



Significance

Significance statements express why the preserve's resources and values are important enough to warrant designation as a national preserve. Statements of significance describe why an area is important within a global, national, regional, and systemwide context. These statements are linked to the purpose of the preserve, and are substantiated by data, research, and consensus. They describe the distinctive nature of the preserve and inform management decisions, focusing efforts on protecting the preserve's most important resources and values.

The following significance statements have been identified for Mojave National Preserve. (Please note that the statements are in no particular order.)

- Mojave National Preserve protects a large, relatively intact ecosystem of the eastern Mojave Desert from continuing threats associated with expanding development and provides connectivity between other protected natural areas within the larger Mojave Desert ecoregion.
- Mojave National Preserve offers exceptional access to remote, wild places and provides a unique sense of discovery for visitors throughout its 1.6 million acres.
- The preserve encompasses a wide variety of classic desert landforms, including mesas, bajadas, dry lakes, sand dunes, and cinder cones. These exposed geologic features exemplify the rugged beauty of the West.
- Mojave National Preserve provides opportunities for solitude, exemplified by natural sounds and dark night skies, functioning as an increasingly rare refuge from nearby urban areas.
- Mojave National Preserve has a long, robust history as a well-traveled corridor across a harsh and foreboding desert, linking the Southwest with the coast of California from ancient times to the present.
- Mojave National Preserve protects a continuous record and remnant sites of the resilient people who have adapted to and manipulated the desert through evolving relationships with the landscape—shaped by cultural values that are both ancient and contemporary.



Interpretive Themes

Interpretive themes are often described as the key stories or concepts that visitors should understand after visiting a national park unit. Themes are derived from—and reflect—the preserve’s purpose, significance, and fundamental resources and values. The set of interpretive themes is complete when it provides the structure necessary for staff to develop opportunities for visitors to explore and relate to all of the preserve significances and fundamental resources and values.

Interpretive themes are an organizational tool that reveal and clarify meaning, concepts, contexts, and values represented by preserve resources. Sound themes are accurate and reflect current scholarship and science. They encourage exploration of the context in which events or natural processes occurred and the effects of those events and processes. They go beyond a mere description of the event or process to foster multiple opportunities to experience and consider the preserve and its resources. Themes help to explain why a preserve story is relevant to people who are unconnected to an event, time, or place.

While themes are important as an organizational tool to guide management decisions, they are not intended for public use. The themes offer guidance to preserve staff on focusing on relevant visitor experiences, and what matters to the public is how these themes are represented through preserve services, media, programming, and facilities.



The following interpretive themes have been identified for Mojave National Preserve:

- **Desert Confluence**
Complex and varied microhabitats within the Basin and Range Province, created by the interplay of topography, weather, and hydrology, produce the conditions that support a rich diversity of Mojave Desert ecosystems interlaced with plant species typically found in the Great Basin and Sonoran deserts.
- **Geologic Landforms**
Over millions of years, geologic forces have shaped the Mojave landscape, providing classic examples of igneous, sedimentary, and metamorphic processes and of landforms such as cinder cones, lava beds, sand dunes, playas, mesas, and bajadas.
- **Desert Adaptations**
Joshua trees, desert tortoises, and desert bighorn sheep are not only iconic examples of the diversity of plants and animals of the Mojave Desert, but also are emblematic of the surprising adaptations that have allowed diverse life forms to thrive in this arid environment.
- **Environmental Threats**
Deserts are often viewed as empty wastelands, but in fact, they are mosaics of ecosystems rich in diversity, but easily impacted by human activities.
- **Human Habitation**
Historical and cultural resources of the California desert spanning 10,000 years of human presence are found at sites associated with both ancient and more recent tribal cultures, as well as more recent patterns of exploration; westward expansion; and mining, ranching, and railroading history.
- **Desert Wilderness**
The size and isolation of the preserve, nearly half of which is designated wilderness, combined with relative ease of access, offer unrivaled opportunities for visitors to undertake primitive and unconfined recreational activities, experiencing an immersion in qualities such as solitude, natural quiet, expansive vistas, and dark night skies.



Fundamental Resources and Values

Fundamental resources and values (FRVs) are those features, systems, processes, experiences, stories, scenes, sounds, smells, or other attributes determined to merit primary consideration during planning and management processes because they are essential to achieving the purpose of the preserve and maintaining its significance.

The most important responsibility of NPS managers is to ensure the conservation of those qualities that are essential (fundamental) to achieving the purpose of the preserve and maintaining its significance. These qualities are called fundamental resources and values. Fundamental resources and values are closely related to legislative purpose, and are more specific than significance statements. FRVs help focus planning and management processes on what is truly significant about the preserve. These resources must be maintained in order to achieve the preserve's purpose and/or significance.

The following fundamental resources and values have been identified for Mojave National Preserve, along with a brief summary of why each FRV is important:

- **Full range of biological diversity of native species representative of the eastern Mojave Desert ecosystem, minimally disturbed by humans**
Protecting this fundamental resource will help sustain a relatively intact desert ecosystem, maintain the connectivity of the preserve to the larger ecoregion, and uphold the intent of the enabling legislation (the California Desert Protection Act), which references preservation of “diverse ecosystems” and “undisturbed ecosystems.”
- **Exposed geologic features and landforms, including sand dunes, cinder cones, mesas, and dry lakes**
The preserve has a high diversity of geologic features noted for protection in the enabling legislation, which can be easily viewed, experienced, and studied because of limited vegetative cover. Also, Cinder Cones Natural Area is a national natural landmark within the preserve boundaries.
- **Desert scenery (encompassing geology, landscape, vegetation, big sky, wildlife, etc.)**
Diverse scenic landscapes and visual qualities foster a sense of discovery and contribute to an emotional connection for visitors. The enabling legislation highlights the importance of protecting this fundamental scenic value.
- **Living laboratory that provides unique opportunities for education and research of abundant cultural resources and a minimally disturbed desert ecosystem**
As highlighted in the enabling legislation, the landscape and ecosystem provide exceptional opportunities for education and research. The high genetic diversity of desert tortoise present in the preserve provides research opportunities for recovering threatened species in a changing environment. Studying environmental changes could also lead to a better understanding of ecological adaptation to attributes such as fire, climate change, and grazing. Also, researching the extensive array of cultural sites (both documented and yet to be discovered) provides insight into past inhabitation and use. Two desert research institutions are specifically mentioned in the enabling legislation—the Sweeney Granite Mountains Desert Research Center and the Desert Studies Center.
- **Natural soundscapes and dark night skies**
Both natural soundscapes and dark night skies are highly desired resource values for visitors experiencing the desert and are integral to the enjoyment of desert solitude. These values are also vital elements of the healthy, intact biological community of the desert. With the convergence of urbanization and other land

development in the region, this fundamental value will continue to be increasingly desirable and rare.

- **Vast expanse of undeveloped open space, including (but not limited to) wilderness**

The huge expanse of undeveloped, protected desert provides a contrast and natural refuge from the human experiences associated with urban living at a geographic scale that fosters a remarkable, unique sense of solitude. Protecting the wilderness character of the designated wilderness within the preserve also upholds the terms of both the California Desert Protection Act and the Wilderness Act.

- **Sense of discovery**

This fundamental value is a highly desired visitor experience derived from the enabling legislation of the preserve. Sense of discovery implies ample opportunities to access and explore the desert, which promotes direct encounters and first-hand experiences.

- **Exemplary relics, sites, stories, and other resources associated with ancient inhabitants and Mojave and Chemehuevi tribal cultures**

Indigenous cultures, both ancient and contemporary, have influenced the vibrant history of the Mojave Desert over the past 10,000 years. Tangible objects such as projectile points, metates, pottery sherds, and rock art sites connect to the stories, history, and culture of the Mojave and Chemehuevi tribes. The enabling legislation calls for the protection and interpretation of these resources and values.

- **Exemplary relics, sites, stories, and other resources associated with historic uses of the eastern Mojave Desert (including mining, ranching, homesteading, and railroad history)**

The preserve encompasses sites, artifacts, and historical records documenting work and life patterns in the Mojave Desert in recent centuries, exemplifying human adaptation to and manipulation of the desert. The enabling legislation provides for the protection and interpretation of these resources and values.

- **Exemplary sites and stories associated with early trade, exploration, and transportation routes such as the Mojave Road and the Old Spanish National Historic Trail**

The lands now encompassed by Mojave National Preserve have been crossed by travelers and desert inhabitants since prehistoric times. Geographic barriers elsewhere funneled trade and transportation between present-day Arizona and New Mexico to southern California across the eastern Mojave Desert. The enabling legislation provides for the protection and interpretation of these resources and values.



Part 2: Dynamic Components

Part 2 consists of two components:

- special mandates and administrative commitments
- assessment of planning and data needs

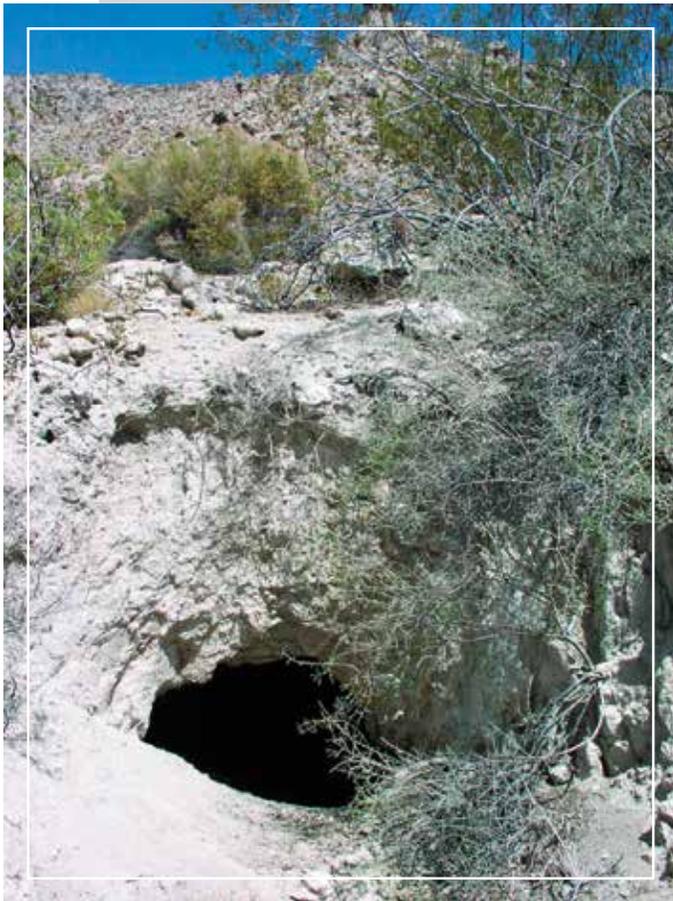
These components may change after this foundation document is published and may need to be updated periodically.

Special Mandates and Administrative Commitments

Many of the management decisions for a park unit are directed or influenced by special mandates and administrative commitments with other federal agencies, state and local governments, utilities, and other partnering organizations. Special mandates are requirements specific to a park unit, which expand on or contradict the legislated purpose of the unit. They are park unit-specific legislative or judicial requirements that must be fulfilled, along with the preserve's purpose, even if the requirements do not relate to that purpose. Administrative commitments in general are agreements that have been reached through formal, documented processes, such as memoranda of agreement. All of these mandates and commitments either dictate some form of management action or will allow particular uses on preserve lands (e.g., permissible traditional uses, easements or rights-of-way, maintenance needs, use of preserve facilities or lands, or emergency service

responses). Thus, these mandates and commitments are an essential component in the foundation document and in managing and planning for Mojave National Preserve. The special mandates identified for Mojave National Preserve include the allowance of grazing, hunting, fishing, and trapping, rights-of-way, the cooperative management of research and education facilities, and the designation of the Mojave National Preserve Wilderness. The administrative commitments key to the management of the preserve include memorandums of understanding (MOUs), rights-of-way, and interagency, programmatic, and cooperating association agreements.

For more information on the preserve's existing mandates and commitments, please see the inventory of special mandates and key administrative commitments table in appendix C.



Assessment of Planning and Data Needs

The assessment of planning and data needs identifies any inherent conditions or threats to resources and values and key issues that affect management of the preserve. This assessment helps managers determine what additional planning needs, data needs, and management efforts may be necessary to maintain or protect the existing fundamental resources and values and address key preserve issues.

The assessment is intended to assist National Park Service managers at the preserve, the Pacific West Regional Office, and the Washington office in formulating planning strategies and budgets. The assessment is a dynamic document that can be updated periodically to reflect the preserve's changing issues, conditions of resources, and planning needs.

The assessment of planning and data needs includes the following sections:

- analysis of fundamental resources and values, including the planning and data needs that would support their protection
- identification of key preserve issues that need to be addressed by future planning
- identification and prioritization of data and planning needs, based on the analysis of fundamental resources and values and identification of key preserve issues

Various information sources have been used to define preserve issues, resource conditions, and planning needs including input from preserve staff at the foundation workshop and from Pacific West Region program staff. Issues and planning needs identified in the analysis of fundamental resources and values were integrated with this input. Data, resource inventories, studies, and similar efforts needed to support the various planning projects are also identified in the assessment.



Analysis of Fundamental Resources and Values

The analysis of fundamental resources and values articulates the importance of each fundamental resource and value, its current condition, potential threats, and the related issues or data that warrant consideration and additional analysis for planning and management decisions. Included in the analysis is the identification of relevant laws and guidance from NPS policies related to the management of the resources as well as the recognition of stakeholder interests in these resources. The analysis of fundamental resources and values and identification of major issues leads to and supports the identification and prioritization of needed plans and studies.

Please see appendix B for the analysis of fundamental resources and values.

Identification of Key Preserve Issues

The key preserve issues identified in this section are those that need to be addressed by planning and/or data collection. The following description of key preserve issues describes specific needs or challenges for existing and future management of Mojave National Preserve.

Transition from BLM Management. Mojave National Preserve is a relatively new NPS unit continuing its transition from BLM management to NPS management. There have been changes in resource management approaches as well as visitor needs. Under BLM management, certain activities such as off-road vehicle use and collecting resources, such as plants and minerals, were allowed. Today, some visitors are still not aware that these uses are no longer allowed in the national preserve. This lack of awareness or confusion has resulted in impacts on natural and cultural resources, impacts on visitor experience, and safety concerns. Although there are entrance monuments and signs at several locations within the preserve, many visitors lack awareness that they are in an NPS unit.



Transfer of San Bernardino County Roads within the Preserve. An immediate issue for the preserve is the transfer of San Bernardino County roads within the preserve to the National Park Service in 2013. The county will transfer the responsibilities of maintaining all roads, regulatory signs, and road-related drainage structures within preserve boundaries. These roads are used not only by visitors, but also by residents who live within the preserve. The National Park Service does not currently have sufficient staffing and funding to take on these responsibilities without assistance from staff at parks elsewhere in the region. Taking over maintenance and repair responsibilities of approximately 255 miles of county roads (176 miles of paved roads and 79 miles of graded roads) will

place a heavy burden on the preserve in terms of staffing support, funding road repairs and equipment operations, and support facilities. The preserve recently completed a detailed road system evaluation with the Federal Highway Administration, identifying project priorities for addressing roadway hazards and pavement deterioration. The preserve is also developing a road management plan for future ongoing operation and maintenance of these roads.



Regional Habitat Connectivity. Within the broader regional context, the preserve is an important habitat area that needs to be protected from both external and internal threats. Habitat and interconnectivity with adjacent conservation lands is currently fragmented by transportation corridors and threatened by new development. Habitat fragmentation, especially in combination with anthropogenic climate change, could result in loss of biodiversity and other natural resources within the preserve. Although an understanding of the role of the preserve in conservation biology across the Mojave Desert region is beginning to emerge for a few species, that picture needs to be significantly expanded to allow the preserve to fully assess the potential impacts of new developments in the region (such as renewable energy) on both the genetic and demographic connectivity of a much wider range of species.

Open lands surrounding the preserve are managed by other federal and state agencies and other landowners. Management actions by other agencies and landowners could have long-term impacts on the open land network, including loss of habitat connectivity for wildlife and plant community migration. Coordinated efforts to protect habitat and outreach to regional communities is critical.

Management Zoning Guidance. The preserve's 2001 general management plan only includes very broad-level management zoning guidance for natural areas and developed areas within the preserve. Additional guidance is needed for making future decisions related to resource management, visitor opportunities, and facilities.

Other Important Preserve Issues

During the planning process, several other issues were identified that were not included in the list of key issues, but are nevertheless of great concern and are therefore included in the following section. External influences such as climate change, solar and wind energy development, and population growth in Las Vegas and Los Angeles may create impacts on NPS visitor and resources management programs that are not yet well understood. As a consequence, the preserve may need to adjust its organizational focus and undertake efforts to create action plans that fully clarify these issues in order to develop appropriate responses.

Climate Change—

- There are many unknowns about the potential impacts of climate change on preserve resources, future visitor experiences, and preserve operations. Data is needed to make management decisions in a timely manner.

Natural Resources—

- Many fundamental resources and values of the preserve (biological diversity, vast expanse of undeveloped lands including wilderness, natural desert scenery, natural soundscapes, and dark night skies) are being threatened by activities external to the preserve. Habitat inside the preserve could be threatened by development of inholdings and is impacted by other human activities both inside and outside the preserve. (Also see “Regional Habitat Connectivity” described earlier.)
- Water resources could be altered by climate change and from groundwater pumping for human water supply and adjacent development.
- Better resource data are needed to make effective management decisions for protection of natural resources.

Cultural Resources—

- More complete baseline cultural resource data are needed to develop a resource stewardship strategy for adequate preservation. Cultural resources throughout the preserve need to be inventoried and evaluated so that treatment plans can be properly developed.
- Environmental threats such as climate change could impact cultural resources in ways that are not yet well known. Wildfires and erosion from wind and water could harm cultural resources. External threats such as renewable energy development will probably impact the visual character of cultural properties.
- Intentional and unintentional visitor threats to cultural resources need to be addressed, both through increased visitor education and law enforcement intervention.



Visitor Experience, including Commercial Services—

- User group trends and visitor demographics have changed over the years. The preserve should evaluate visitor facilities and other services to determine if they meet the needs of a regional visiting public whose demographics have changed over the years and to assure that the needs of various users groups, including hunters/sportsmen, are also assessed. Current and planned outreach efforts should be informed by these assessments.
- Interpretive exhibits at the Kelso Depot Visitor Center were designed to encourage visitors to explore preserve resources first-hand. However, interpretation of most preserve themes is lacking at locations outside the visitor center.
- Many visitors lack awareness that they are in a national park unit.
- Visitors have indicated their desire for additional opportunities, facilities, and services throughout the preserve. Through NPS annual visitor surveys, members of the public have repeatedly requested developed campgrounds on the west side of the preserve. A visitor services plan or a recreation plan would analyze recreation opportunities, commercial services, and incorporate management zoning guidance.
- The general management plan allows roadside camping at existing campsites. Preserve management has identified the need to document, monitor, and restore roadside campsites to meet the intent of the California Desert Protection Act of 1994 and carry out guidance in the general management plan. This work is currently underway. Habitat encroachment, extensive littering, and deposit of human waste are among the impacts that have been observed.
- Reduced staff due to budget cuts may lead to reductions in available visitor services. This includes reductions in staffing at information centers, reductions in preserve-developed free literature, and difficulties in expanding a web presence.
- Climate change may influence the visitor experience, including changes in seasonal visitation patterns and experiences.



Facilities and Operations—

- The transfer of San Bernardino County roads within the preserve to the National Park Service is an immediate issue for the preserve. See the previous section for further detail.
- The Mojave Road is a popular historic backcountry route that is receiving a high amount of use. The road was one of the alternate southern routes for the earlier Old Spanish National Historic Trail. The Mojave Road is now largely a four-wheel-drive route across the preserve. Management of the Mojave Road encompasses a set of issues that extend beyond the typical road maintenance infrastructure concerns that apply to other major visitor thoroughfares. A perceived increase in the popularity of the Mojave Road and related changes in how the route is being used have raised concerns over resource protection, use capacity, safety, and visitor experience.
- Field office space needs to be evaluated. Office space that is strategically located in the preserve could improve the efficiency of NPS operations that require staff to work in the field. Preserve headquarters in Barstow are 60 miles from the western boundary of the preserve
- The availability of potable drinking water to be used at existing and future preserve facilities is a limiting factor in locating new facilities. Adequate groundwater can be difficult to find and costly to extract. Electricity can be produced at facilities with solar electric systems but telephone and internet communication is unreliable in most areas.
- The capacity and reliability of existing solar electric systems supporting field offices and housing need to be evaluated for their adequacy in meeting staff requirements. In addition, staff training is needed to develop the expertise required to effectively manage these independent solar systems in order to take full advantage of this technology and prolong its life.
- Reduction in staffing due to budget cuts could continue to lead to less frequent cleaning and routine maintenance of restrooms and other visitor facilities.
- Climate change could influence facilities and operations, possibly influencing changes in potable water supplies and visitor use patterns.



External Lands, Boundaries, and Land Acquisition—

- Land acquisition on behalf of the preserve through direct purchase by the National Park Service with funding from the Land and Water Conservation Fund; by exchange with the State of California (state school lands); and by donation from nonprofit land trusts (Mojave Desert Land Trust, National Parks Foundation) has been ongoing. Goals and objectives set by land trusts should be compatible with those of the preserve. Land acquisitions and transfers to the National Park Service should complement high priority preserve management objectives.
- Boundary encroachment activities such as off-highway vehicle use, illegal dumping, and wildlife poaching have adverse impacts on preserve resources.
- Development of solar and wind energy projects on Bureau of Land Management land adjacent to the preserve have the potential for negative impacts on visitor enjoyment of views from within the preserve and may degrade wildlife movement corridors for species such as the desert bighorn sheep and deer. The proposed Cadiz water storage and extraction development to be located south of the preserve may have long term impacts on groundwater within the preserve.
- Working with other federal land management agencies (Bureau of Land Management, U.S. Fish and Wildlife Service, and the U.S. Forest Service) is essential to prioritizing and protecting lands between and beyond these park units. Mojave National Preserve, Joshua Tree National Park, Lake Mead National Recreation Area, and Death Valley National Park are working on a joint project that will result in a prioritization of conservation values. These values will be applied to land parcels outside of the park units and used to help focus land acquisition. One goal is to use this process, specific to the National Park Service, to add to the efforts of the Desert Managers Group (DMG) Conservation Land Acquisition Workgroup (CLAWG) to identify and prioritize such parcels desert-wide. Wildlife connectivity corridors between conservation areas was considered as one of the more important conservation values that could be addressed through the focused acquisition of specific parcels and their subsequent protection and conservation.



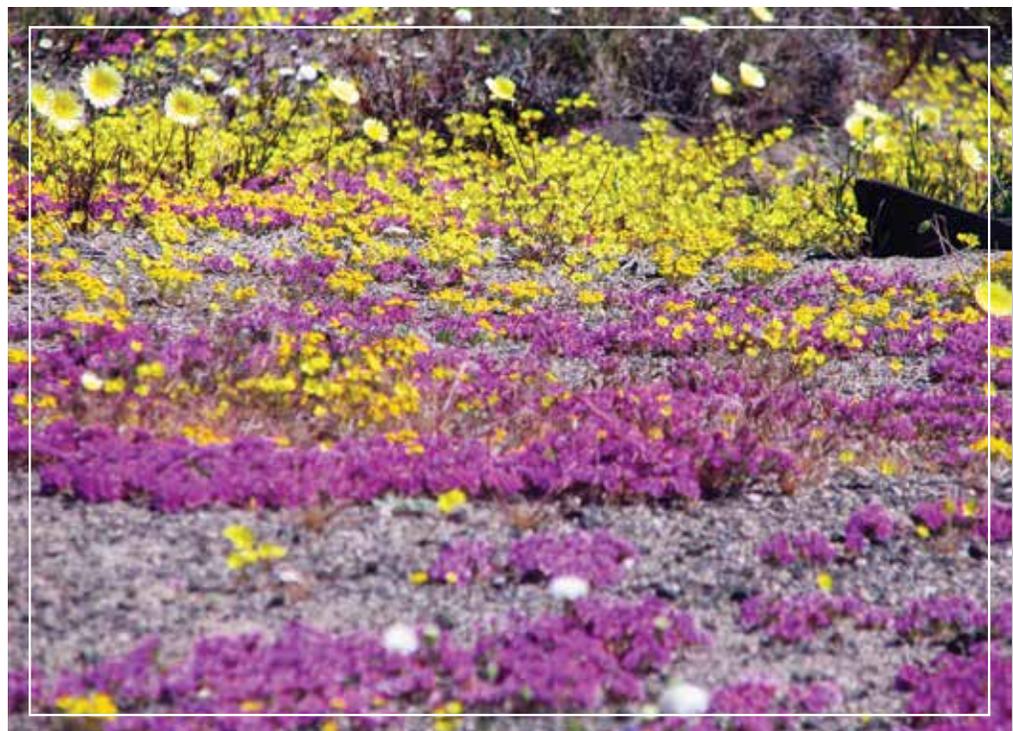
Identification and Prioritization of Planning and Data Needs

This section identifies and prioritizes needed plans and studies or research for Mojave National Preserve. The plans and data identified in this section are needed to maintain and protect the preserve’s fundamental resources and values and also addresses key preserve and regional issues. These planning needs include comprehensive plans, strategic plans, resources inventories, studies, data needs, as well as other tools such as agreements with partners. The planning and data needs were then prioritized by ranking each according to several criteria described below. Based on these criteria, plans and studies were grouped into categories of high, medium, and low priority projects. This information will be used by preserve managers and staff from the NPS Pacific West Region and Washington offices to determine priorities and consider the future planning needs of the preserve.

Criteria and Considerations for Prioritization

The following criteria were used to evaluate the priority of each planning or data need:

- Greatest utility to managers of the preserve
- Ability to address multiple issues, as many issues are interrelated. For example, many visitor capacity issues are interrelated with resource protection issues.
- Emergency/urgency of the issue.
- Prevent resource degradation.
- Plans that consider protection of the fundamental resources and values.
- Result in a significant benefit for visitors.
- Feasibility of completing the plan or study, including staffing support and funding availability.
- Opportunities, including interagency partnership or assistance.



High Priority Planning Needs

The preserve staff identified the following high priority planning and data needs:

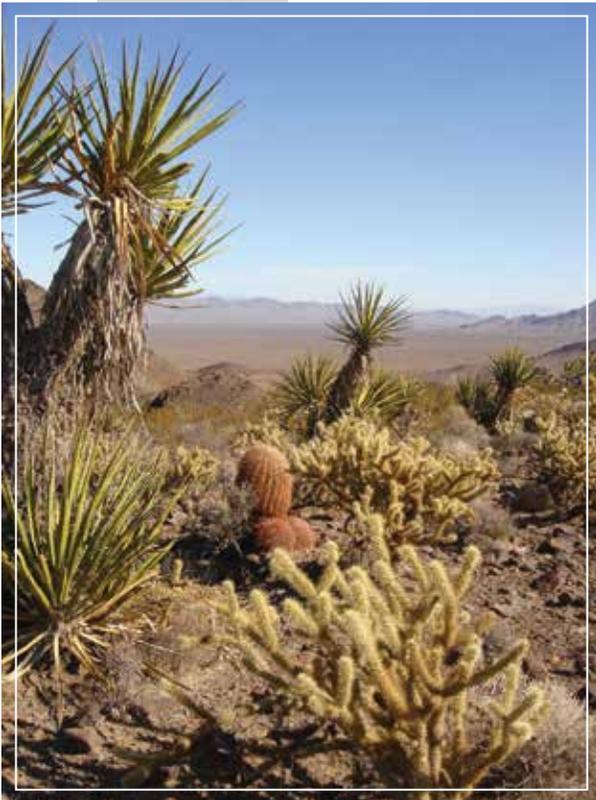
High Priority Planning and Data Needs	Description/Rationale
road management plan	Strategies for maintenance and repair duties; guidance for visitor circulation
Mojave Road plan	Integrated approach to address visitor use, cultural resources, and natural resources issues
climate change scenario planning	Science-based climate change scenarios, identify associated impacts and management implications; will feed into subsequent plans
fire management plan (update)	Existing fire management plan is out of date
resource stewardship strategy	Adaptive management approaches to mitigate threats from human use and climate change
management zoning guidance	Guidance is lacking in general management plan; desired conditions for resources, visitor opportunities, and facilities
master development plan	Plan will follow management zoning guidance; detailed site plans; evaluate visitor and administrative facility needs
visitor services plan	Evaluate visitor services throughout the preserve; improve visitor awareness and the identity of the preserve
historic furnishing plan and exhibit for Kelso School	Guidance for the interpretation by developing the interior with historic furnishings

Rationales, Scope, and Sequencing of High Priority Planning Needs

Road Management Plan.

Rationale—There are immediate critical needs related to management and maintenance of roads. This plan would include strategies on how the National Park Service would assume maintenance and repair responsibilities for all paved and unpaved roads (most of which were previously maintained by San Bernardino County, California) within the preserve. The length of regularly maintained preserve roads totals approximately 255 miles. It would also identify road standards to be applied that are consistent with other preserve resources and values. The plan would also provide guidance for visitor circulation and identify maintenance standards for various levels of access to be provided on the primitive backcountry road system (e.g., maintained for passenger vehicles, for four-wheel drive or high-clearance vehicles only, etc.) If roads are not properly maintained, drainage facilities such as ditches and low-water crossings may fail and road braiding may occur, resulting in potential resource impacts on lands adjacent to these roads.

Scope and Sequencing—This plan would include comprehensive guidance for managing and maintaining roads throughout the preserve. Because the county will be transferring ownership of these roads to the National Park Service in 2013, the preserve needs to develop this plan as soon as possible to determine how the additional roads would be managed. The preserve would receive assistance from the regional Facilities Management Division and the Federal Highways Administration to complete this planning effort.



Mojave Road Plan.

Rationale—There are resource assessments, law enforcement issues, and data on visitor use patterns of the historic Mojave Road that need to be addressed to inform management.

Scope and Sequencing—This plan would address both recreational use of this largely four-wheel-drive road and site management along its length. It would include monitoring of use and analysis of maintenance needs in terms of staffing, infrastructure, etc. The preserve would need assistance from the regional Facilities Management Program to complete this planning effort. This planning effort would involve collecting data on use patterns, including how many people use the road, and which areas and resources are most heavily impacted. The plan would determine appropriate visitor capacity and how the Mojave Road corridor can be more effectively managed to reduce negative impacts to cultural and natural resources as well as the visitor experience on this former historic trail.

Climate Change Scenario Planning.

Rationale— Through this process, the preserve would identify science-based climate change scenarios, describe the associated impacts and management implications, with emphasis on the monument’s fundamental resources and values. This planning effort satisfies Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources.” The NPS Director has further instructed parks to consider climate change in all levels of NPS planning (NPS Climate Change Response Strategy 2010).

Scope and Sequencing—Outcomes from a scenario planning effort can be integrated in park planning and management to bring appropriate climate change adaptation into those documents (fire management plan, resource stewardship strategy, master development plan, etc.). This planning process allows the preserve to explore the range of climate futures that are plausible based on the latest modeled projection, and identify the associated impacts and management implications.

Fire Management Plan.

Rationale—The fire management plan is out of date and an update is needed soon.

Scope and Sequencing—A recent review of the joint Mojave National Preserve / Joshua Tree National Park /Bureau of Land Management Fire Program determined that assistance from the Pacific West Region is needed to update the Mojave National Preserve Fire Management Plan. This review concluded that the preserve does not have the appropriate staff to update the existing document given its content and the changes in fire management that have been taking place nationally.

Resource Stewardship Strategy.

Rationale—The preserve lacks specific desired future natural and cultural resource condition goals. Adaptive management approaches to mitigate threats from human land use and climate change need to be developed.

Scope and Sequencing—The resource stewardship strategy (RSS) would take an integrated natural and cultural resources approach. It would identify conservation objectives and potential activities for managing resources as well as implementation strategies. The resource stewardship strategy would include interagency plans and strategies for wildlife and vegetation linkages, connectivity, and migration corridors (that respond to threats of energy development, urban encroachment, and climate change). This strategy would consider resource condition along with funding and staffing requirements. This planning need is a precursor to several other priority planning needs related to natural and cultural resources. The preserve would need assistance from the region to undertake this planning effort. Data that would be needed for the resource stewardship strategy are being collected. The preserve would need to complete the natural resources condition assessment and make sure it is aligned with the RSS approach (review categories of resources that would be addressed). Similar data for cultural resources would also be needed. This foundation document, particularly the analyses of fundamental resources and values, will inform the resource stewardship strategy. The model for an “RSS Pragmatic” presently being formulated by Joshua Tree National Park and Pinnacles National Monument seems very appropriate for application at Mojave National Preserve.

Management Zoning Guidance.

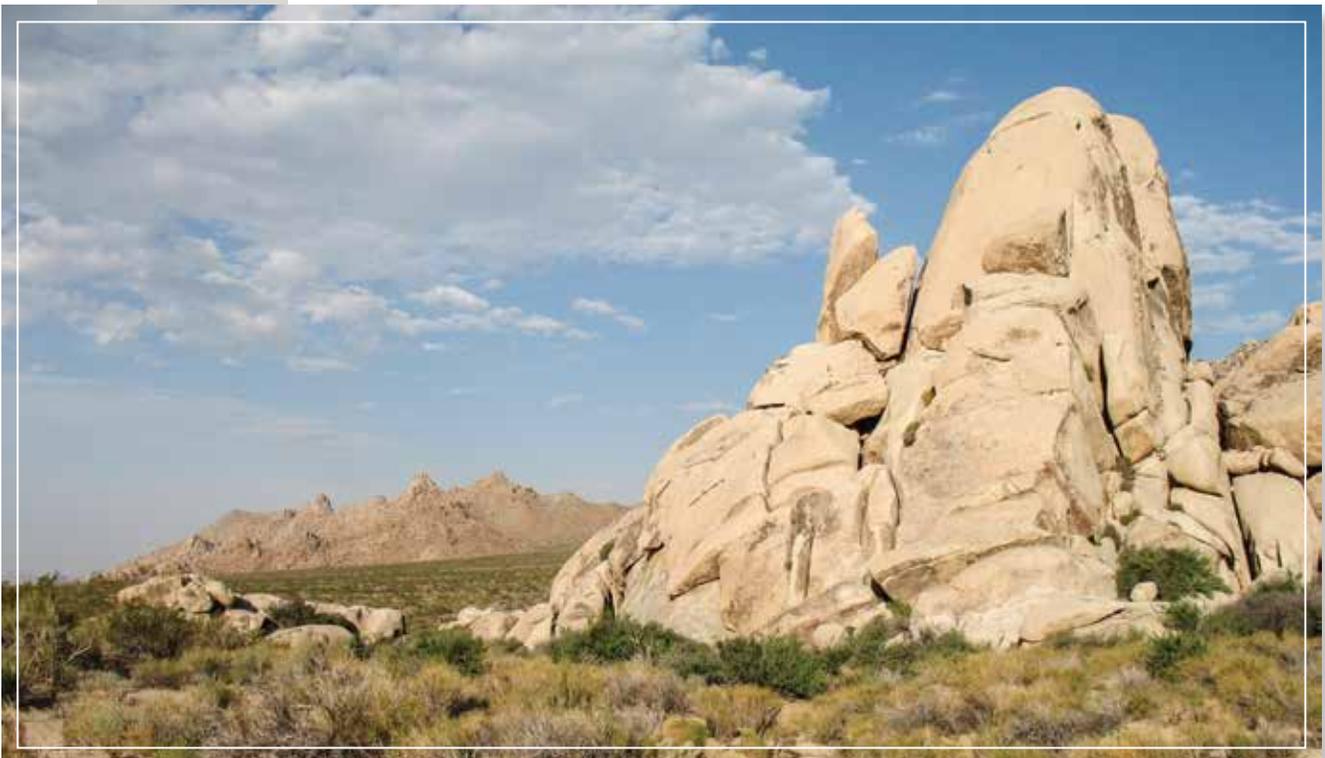
Rationale—Mojave National Preserve lacks sufficient guidance for implementing decisions in the general management plan, including identifying locations of future visitor and NPS administrative activities and facilities. As mentioned in the key issues section, the preserve’s general management plan includes broad-level management zoning guidance for natural areas and developed areas within the preserve. Additional detailed guidance expanding on the existing management zone descriptions for the 1.6 million-acre preserve would help managers make coordinated decisions.

Scope and Sequencing—This plan would identify zones and routes within the preserve with written descriptions and maps. Each zone would include descriptions of the desired conditions of resources, visitor experiences, activities that will be present, and the type of facility support needed. This plan should be completed before the master development plan, which will provide more analysis, site plans, and written details of future facilities or activities.

Master Development Plan.

Rationale—The master development plan would follow the management zoning guidance and would provide detailed site plans and descriptions for projects. Visitor and administrative facilities need to be evaluated to determine both immediate and long-term needs. Facilities are spread throughout large areas, creating challenges in preserve management and effective visitor contact.

Scope and Sequencing—This plan would include specific location guidance. Site development plans for Baker, Kelso, and Hole-in-the-Wall would be included. Employee housing and office needs would be addressed by this plan.



Visitor Services Plan.

Rationale—Almost all existing recreation facilities were inherited from the BLM when Mojave National Preserve was established in 1994. Those facilities are limited in scope and do not meet the needs of current visitors. Certain visitor facilities and services, such as restrooms, parking areas, trailheads, and interpreted overlooks, are lacking throughout the preserve. Often visitors lack awareness that they are in a national park unit.

Issues include a need for

- more robust identification and interpretation at preserve entrances
- interpretive trails and wayside exhibits that are easily accessible from paved roads
- universally accessible recreation facilities
- developed campground(s) west of the Providence Mountains

Scope and Sequencing—The visitor services plan would incorporate guidance from the management zoning guidance plan and could be conducted as a single plan to address visitor facilities and recreation or two separate plans.

Visitor facilities that would be considered in this plan include wayside exhibits/pullouts and restrooms. There would be a focus on roadside interpretation, short interpretive trails, and entrances. This plan would strive to improve visitor awareness and visitor identification that they are indeed in a national park unit and resolve outstanding weaknesses in recreation and visitor support infrastructure. Commercial services would also be considered in this plan.

This plan would evaluate the spectrum of recreational opportunities preservewide that are both desired and appropriate and would identify the best locations for any development needed to support recreation use. It would include site selection for interpretive trails and pullouts and identification of outstanding features, such as the lava tube, where road improvements would facilitate visitor access. Additionally, the plan would make recommendations about the level of development desirable for each location.

Following the visitor services plan, individual site plans would be developed for each site identified in the plan. For example, a site plan for Hole-in-the-Wall would be developed. Hole-in-the-Wall is a popular recreation area where most campgrounds and trails are located. The Hole-in-the-Wall Information Center was constructed by the Bureau of Land Management as a temporary facility that has long outlived its planned lifespan. The campground is located in a floodplain. The site plan would address issues such as selecting a location for a permanent information center, development of office space, evaluation of the campground, and possible additional trail development. This planning could proceed in the absence of an overall visitor services plan, but would benefit from information and decisions made first in a preservewide visitor services plan.

Developing a separate entrance plan could proceed in the absence of an overall visitor services plan. This plan could include consideration of information kiosks and signs. Entrance development plans don't require site selection, have easily identifiable goals, and are limited in scope.

Historic Furnishings and Exhibit Plan for Kelso Schoolhouse.

Rationale—In 2011 and 2012 NPS funds and labor were used to rehabilitate the Kelso Schoolhouse. The plan is to use the schoolhouse for interpreting life in Kelso by developing the interior with historic furnishings. Accomplishing this requires a historic furnishings and landscape plan.

Scope and Sequencing—A Project Management Information System (PMIS) funding request for this project is in the system for furnishings and interpretive exhibits to tell the story of the school. The preserve should give this request a high priority number to boost chances of funding. Assistance from a contractor (favored approach), the NPS Pacific West Region, or Harpers Ferry Center will be required to produce the plan/report.

Additional High Priority Plans Underway

The following high priority plans are underway and need to be completed:

Roadside Campsite Management. A roadside campsite management plan is being prepared in-house and should be completed in fiscal year 2013. This plan addresses the need to document, monitor, and restore roadside campsites, and to reduce the impacts of hunter camping. It does not address camping in campgrounds, the group campsite, the equestrian campsite, or the backcountry.

Grazing Management Plan. This plan is underway and will provide guidance to NPS managers and the grazing lease holders on when to pull cattle off the land or to move them to other grazing areas to avoid detrimental impacts on the grazing allotment, based on a scientifically designed and peer-reviewed set of resource monitoring protocols.

Invasive Plant Management Plan. A draft plan is underway. This plan will focus on invasive plant management strategies that will include all of those that have been identified or may become a problem at the preserve. Sahara mustard has previously been identified as a target species and control efforts have begun but other species, notably red brome, also pose a threat to native vegetation in the area.

Annual Strategic Plan: Preserve Annual Work Goals. Preserve staff, especially the management team, are constantly being pulled in many directions at once due to new and/or improved mandates that may or may not be funded. A simple annual strategic plan is needed to assure that the preserve maintains a sense of the appropriate priority to place on new requests and needs with respect to those parts of its core mission that are already underway. The preserve will complete a strategic plan in fiscal year 2013. This plan will set goals and priorities for the preserve on an annual and five-year basis following a model developed at Death Valley National Park. The plan will consist of only a few pages and can be developed by staff in a one-day facilitated session that relies on building consensus about how the preserve's many needs should be prioritized and how new mandates can be subsequently prioritized so that they are dealt with appropriately within that strategy.



Other Plans, Studies, and Agreements Underway

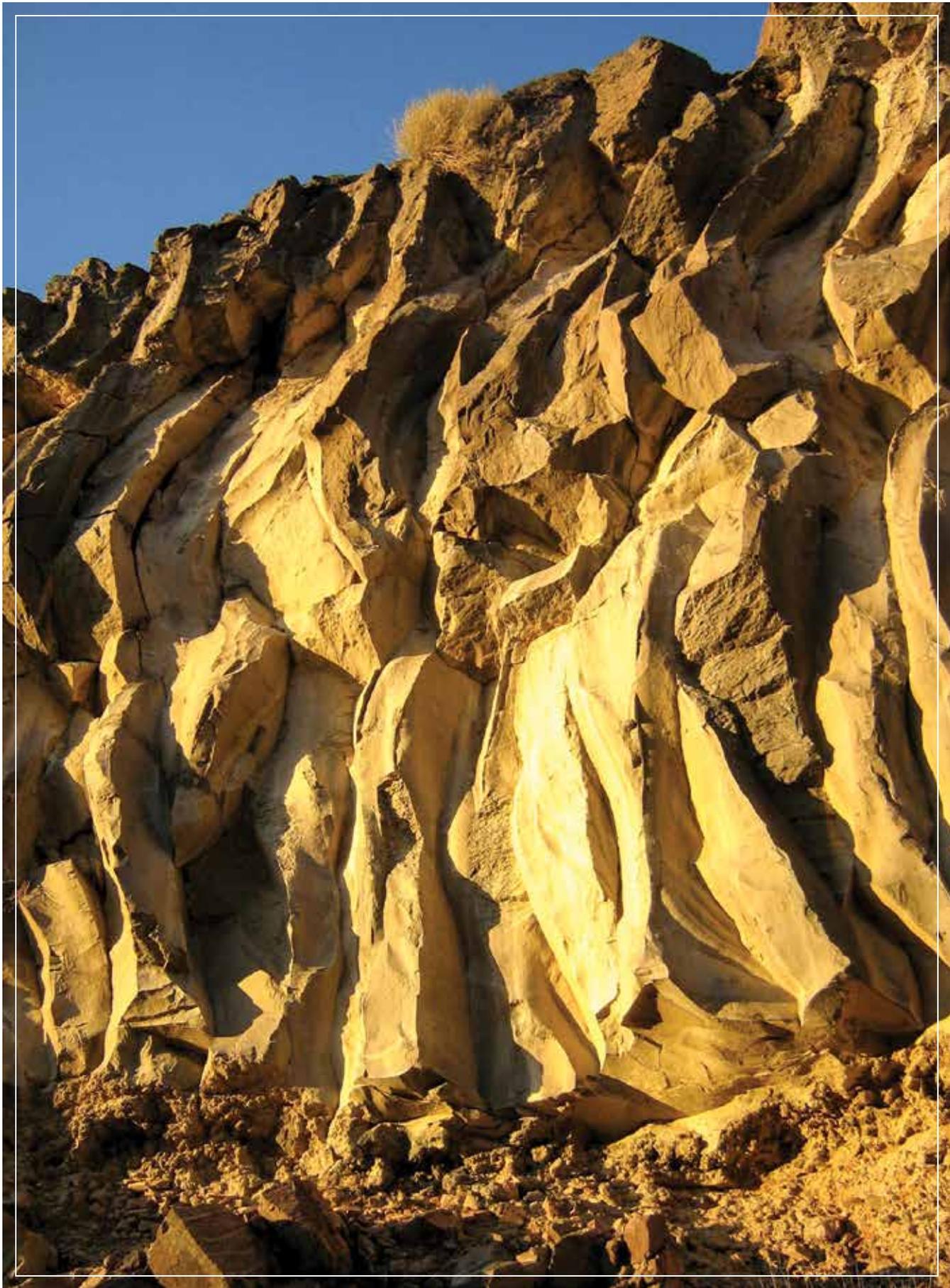
- water resources management plan—water rights and water uses assessment, including an assessment of potential threats to preserve water rights and resources
- rock art management plan
- trails management plan (draft)
- climate-friendly parks (sustainable design standards, energy conservation strategy)
- law enforcement needs assessment
- improved law enforcement and fire management agreement with counties



Medium/Low Planning and Data Needs

Plans, Studies, Data Needs, and Other Tools for Protecting FRVs and Addressing Preserve Issues		Medium / Low Priority
Natural Resources	Plans and Studies	
	<ul style="list-style-type: none"> Burro management plan. 	M
	<ul style="list-style-type: none"> Need data for impacts on driving on Soda Dry Lake and/or Soda Dry Lake management plan or study. 	L
	<ul style="list-style-type: none"> Update to land protection plan. 	L
	<ul style="list-style-type: none"> Compile existing soundscape data, complete analysis, and/or redo soundscape study regarding wind turbines. 	M
	Data Needs	
	<ul style="list-style-type: none"> Data collection on preserve vegetation (including compilation of existing information from external sources). 	L
	<ul style="list-style-type: none"> The preserve hosts the juncture of three distinct population segments of the desert tortoise in an area of gently sloping but substantial elevation change. Thus the preserve presents a unique opportunity to study the effects of climate change and upwardly migrating vegetation ecotones on desert tortoise genetic diversity. 	M
	<ul style="list-style-type: none"> Gathering better deer harvest information and work with the State of California on harvest issue, etc. 	L
	<ul style="list-style-type: none"> Paleoclimatic proxy records (e.g., lake sediments, spring deposits). 	M
	<ul style="list-style-type: none"> Need study on relationship between surficial geology and biological soil crust as impacted by human disturbance. Important for siting facilities; don't want to impact desert pavement. 	M
	<ul style="list-style-type: none"> Visitor use impacts on dunes. 	L
	<ul style="list-style-type: none"> Air quality monitoring is needed, especially because several areas have been cleared of vegetation (may be an external effort). 	M
	<ul style="list-style-type: none"> Study effects of climate change on water resources and other natural resource topics. 	
	<ul style="list-style-type: none"> Monitoring of external threats impacts, especially from renewable energy projects. 	M
	<ul style="list-style-type: none"> Grazing monitoring program—update conditions and identify needed actions. 	M
	Other	
	<ul style="list-style-type: none"> Coordination with the State of California regarding water use/demands both inside and outside the preserve (being addressed through water resources management plan). 	M
	<ul style="list-style-type: none"> Sharing of resource data across agencies. 	M
	<ul style="list-style-type: none"> Coordination of management actions/decisions across boundaries (higher level than Desert Managers Group). 	M

Plans, Studies, Data Needs, and Other Tools for Protecting FRVs and Addressing Preserve Issues		Medium / Low Priority
Cultural Resources	Plans and Studies	
	<ul style="list-style-type: none"> Cultural resources condition assessment. <ul style="list-style-type: none"> Guidance is being developed at the WASO level for a comprehensive cultural resources condition assessment that would be similar to the natural resources condition assessment. 	M
	<ul style="list-style-type: none"> Resource-specific condition assessments and treatment plans. 	M
	<ul style="list-style-type: none"> Site plan for Kelso cultural landscape. 	M
	<ul style="list-style-type: none"> Curation planning, including collection acquisition and consolidation. 	M
	<ul style="list-style-type: none"> Determinations of eligibility. 	M
	Data Needs	
	<ul style="list-style-type: none"> Additional railroad recordation as archaeological sites. 	L
	<ul style="list-style-type: none"> Need more site recordation and determinations of eligibility, especially for rock art sites. 	M
	<ul style="list-style-type: none"> Study of the Lanfair homesteading period. 	L
	<ul style="list-style-type: none"> Collection/compilation of oral history information. 	M
	<ul style="list-style-type: none"> Prehistoric cultural resources data collection and storytelling by working with tribal communities. 	L
	Other	
	<ul style="list-style-type: none"> Print/publish Railroads of the Mojave Desert by Gordon Chappell. 	M
	<ul style="list-style-type: none"> Rock art National Register of Historic Places nominations. 	L
<ul style="list-style-type: none"> Data collection/storytelling, prehistory (with tribal consultation). Tribal consultation (tribes need to identify their desires). 	L	
Wilderness	Plans and Studies	
	<ul style="list-style-type: none"> Wilderness stewardship plan / backcountry management plan. <ul style="list-style-type: none"> Possibly combine both. Other plans will cover issues related to backcountry. Preserve staff feel that issues are less urgent and issues related to wilderness are being covered in other planning efforts. For example, camping in wilderness is being covered by the roadside camping management plan. Also guzzlers and grazing are covered in those plans. Other activities such as hiking need to be addressed. 	M



Plans, Studies, Data Needs, and Other Tools for Protecting FRVs and Addressing Preserve Issues		Medium / Low Priority
Visitor Experience	Plans and Studies	
	<ul style="list-style-type: none"> Revise/update long-range interpretive plan. 	M
	<ul style="list-style-type: none"> Interpretive plan for mine sites. 	M
	<ul style="list-style-type: none"> Interpretive plan for three ranches. 	M
	<ul style="list-style-type: none"> Plan for short interpretive trails off paved roads. 	M
	<ul style="list-style-type: none"> Zzyzx interpretive plan. 	L
	Data Needs	
	<ul style="list-style-type: none"> Use studies (number, type, time, and seasonality of use) precede Mojave Road management plan. 	M
	<ul style="list-style-type: none"> Address geocaching/earthcaching use, gather data. 	L
	<ul style="list-style-type: none"> Visitor survey update (or every 5 years). 	M
	Other	
	<ul style="list-style-type: none"> Expansion in education/outreach efforts and programs with user groups, online, etc. to get them information before they get to preserve. 	M
	<ul style="list-style-type: none"> Improve partnerships with other agencies to expand information sharing on preserve (so visitors are clear which land units are for which uses). 	L
<ul style="list-style-type: none"> Visitor education and outreach effort (programming) that addresses visitor awareness that hunting goes on in preserve and aims to reduce adverse impacts from hunting activities (off-road, campsites, etc.). 	M	
Facilities / Operations	Plans and Studies	
	<ul style="list-style-type: none"> Improve training plans, and individual development plans. 	M
	<ul style="list-style-type: none"> Communication infrastructure plan <ul style="list-style-type: none"> The preserve would conduct/lead this plan, but outside help would be of great assistance; need outside expertise. The plan would evaluate what they have and what the needs are to have infrastructure in the right shape. Need consultant review and a needs assessment. 	M
	<ul style="list-style-type: none"> Abandoned mine land reclamation plan – as recommended by the Office of Inspector General, this plan would provide guidance on how to reclaim and mitigate abandoned mine lands. 	M
	Data Needs	
	<ul style="list-style-type: none"> Analysis of how best to apply mitigation funds. 	L
	Other	
	<ul style="list-style-type: none"> Improve employee work life. 	M
<ul style="list-style-type: none"> Better agreement and management of the agreement with the federal interagency communications center and/or alternatives. 	M	
<ul style="list-style-type: none"> Staffing should assist with the alternative energy development issues and sharing of agreements/methods of analyzing impacts as developed by Joshua Tree National Park. 	M	

Part 3: Preparers and Consultants

Mojave National Preserve

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APPENDIXES

Appendix A: Enabling Legislation and Legislative Acts for Mojave National Preserve

Mojave National Preserve established by the California Desert Protection Act of October 31, 1994 (P.L. 103-433, 108 Stat. 4471)

One Hundred Third Congress of the United States of America

AT THE SECOND SESSION

*Begun and held at the City of Washington on Tuesday,
the twenty-fifth day of January, one thousand nine hundred and ninety-four*

An Act

To designate certain lands in the California Desert as wilderness, to establish the Death Valley and Joshua Tree National Parks, to establish the Mojave National Preserve, and for other purposes.

*Be it enacted by the Senate and House of Representatives of
the United States of America in Congress assembled,*

SECTION 1. SHORT TITLE.

Sections 1 and 2, and titles I through IX of this Act may be cited as the "California Desert Protection Act of 1994".

SEC. 2. FINDINGS AND POLICY.

(a) The Congress finds and declares that—

(1) the federally owned desert lands of southern California constitute a public wildland resource of extraordinary and inestimable value for this and future generations;

(2) these desert wildlands display unique scenic, historical, archeological, environmental, ecological, wildlife, cultural, scientific, educational, and recreational values used and enjoyed by millions of Americans for hiking and camping, scientific study and scenic appreciation;

(3) the public land resources of the California desert now face and are increasingly threatened by adverse pressures which would impair, dilute, and destroy their public and natural values;

(4) the California desert, embracing wilderness lands, units of the National Park System, other Federal lands, State parks and other State lands, and private lands, constitutes a cohesive unit posing unique and difficult resource protection and management challenges;

(5) through designation of national monuments by Presidential proclamation, through enactment of general public land statutes (including section 601 of the Federal Land Policy and Management Act of 1976, 90 Stat. 2743, 43 U.S.C. 1701 et seq.) and through interim administrative actions, the Federal Government has begun the process of appropriately providing for protection of the significant resources of the public lands in the California desert; and

(6) statutory land unit designations are needed to afford the full protection which the resources and public land values of the California desert merit.

(b) In order to secure for the American people of this and future generations an enduring heritage of wilderness, national parks, and public land values in the California desert, it is hereby declared to be the policy of the Congress that—

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(1) appropriate public lands in the California desert shall be included within the National Park System and the National Wilderness Preservation System, in order to—

(A) preserve unrivaled scenic, geologic, and wildlife values associated with these unique natural landscapes;

(B) perpetuate in their natural state significant and diverse ecosystems of the California desert;

(C) protect and preserve historical and cultural values of the California desert associated with ancient Indian cultures, patterns of western exploration and settlement, and sites exemplifying the mining, ranching and railroad-ing history of the Old West;

(D) provide opportunities for compatible outdoor public recreation, protect and interpret ecological and geological features and historic, paleontological, and archeological sites, maintain wilderness resource values, and promote public understanding and appreciation of the California desert; and

(E) retain and enhance opportunities for scientific research in undisturbed ecosystems.

TITLE V—MOJAVE NATIONAL PRESERVE

SEC. 501. FINDINGS.

The Congress hereby finds that—

(1) Death Valley and Joshua Tree National Parks, as established by this Act, protect unique and superlative desert resources, but do not embrace the particular ecosystems and transitional desert type found in the Mojave Desert area lying between them on public lands now afforded only impermanent administrative designation as a national scenic area;

(2) the Mojave Desert area possesses outstanding natural, cultural, historical, and recreational values meriting statutory designation and recognition as a unit of the National Park System;

(3) the Mojave Desert area should be afforded full recognition and statutory protection as a national preserve;

S. 21—20

(4) the wilderness within the Mojave Desert should receive maximum statutory protection by designation pursuant to the Wilderness Act; and

(5) the Mojave Desert area provides an outstanding opportunity to develop services, programs, accommodations and facilities to ensure the use and enjoyment of the area by individuals with disabilities, consistent with section 504 of the Rehabilitation Act of 1973, Public Law 101–336, the Americans With Disabilities Act of 1990 (42 U.S.C. 12101), and other appropriate laws and regulations.

SEC. 502. ESTABLISHMENT OF THE MOJAVE NATIONAL PRESERVE.

There is hereby established the Mojave National Preserve, comprising approximately one million four hundred nineteen thousand eight hundred acres, as generally depicted on a map entitled “Mojave National Park Boundary—Proposed”, dated May 17, 1994, which shall be on file and available for inspection in the appropriate offices of the Director of the National Park Service, Department of the Interior.

SEC. 503. TRANSFER OF LANDS.

Upon enactment of this title, the Secretary shall transfer the lands under the jurisdiction of the Bureau of Land Management depicted on the maps described in section 502 of this title, without consideration, to the administrative jurisdiction of the Director of the National Park Service. The boundaries of the public lands shall be adjusted accordingly.

SEC. 504. MAPS AND LEGAL DESCRIPTION.

Within six months after the date of enactment of this title, the Secretary shall file maps and a legal description of the preserve designated under this title with the Committee on Energy and Natural Resources of the United States Senate and the Committee on Natural Resources of the United States House of Representatives. Such maps and legal description shall have the same force and effect as if included in this title, except that the Secretary may correct clerical and typographical errors in such legal description and in the maps referred to in section 502. The maps and legal description shall be on file and available for public inspection in the appropriate offices of the National Park Service, Department of the Interior.

SEC. 505. ABOLISHMENT OF SCENIC AREA.

The East Mojave National Scenic Area, designated on January 13, 1981 (46 FR 3994), and modified on August 9, 1983 (48 FR 36210), is hereby abolished.

SEC. 506. ADMINISTRATION OF LANDS.

(a) The Secretary shall administer the preserve in accordance with this title and with the provisions of law generally applicable to units of the National Park System, including the Act entitled “An Act to establish a National Park Service, and for other purposes”, approved August 25, 1916 (39 Stat. 535; 16 U.S.C. 1, 2–4).

(b) The Secretary shall permit hunting, fishing, and trapping on lands and waters within the preserve designated by this Act in accordance with applicable Federal and State laws except that the Secretary may designate areas where, and establish periods

when, no hunting, fishing, or trapping will be permitted for reasons of public safety, administration, or compliance with provisions of applicable law. Except in emergencies, regulations closing areas to hunting, fishing, or trapping pursuant to this subsection shall be put into effect only after consultation with the appropriate State agency having responsibility for fish and wildlife. Nothing in this Act shall be construed as affecting the jurisdiction or responsibilities of the States with respect to fish and wildlife on Federal lands and waters covered by this title nor shall anything in this Act be construed as authorizing the Secretary concerned to require a Federal permit to hunt, fish, or trap on Federal lands and waters covered by this title.

SEC. 507. WITHDRAWAL.

Subject to valid existing rights, all Federal lands within the preserve are hereby withdrawn from all forms of entry, appropriation, or disposal under the public land laws; from location, entry, and patent under the United States mining laws; and from disposition under all laws pertaining to mineral and geothermal leasing, and mineral materials, and all amendments thereto.

SEC. 508. REGULATION OF MINING.

Subject to valid existing rights, all mining claims located within the preserve shall be subject to all applicable laws and regulations applicable to mining within units of the National Park System, including the Mining in the Parks Act (16 U.S.C. 1901 et seq.), and any patent issued after the date of enactment of this title shall convey title only to the minerals together with the right to use the surface of lands for mining purposes, subject to such laws and regulations.

SEC. 509. STUDY AS TO VALIDITY OF MINING CLAIMS.

(a) The Secretary shall not approve any plan of operation prior to determining the validity of the unpatented mining claims, mill sites, and tunnel sites affected by such plan within the preserve and shall submit to Congress recommendations as to whether any valid or patented claims should be acquired by the United States, including the estimated acquisition costs of such claims, and a discussion of the environmental consequences of the extraction of minerals from these lands.

(b)(1) Notwithstanding any other provision of law, the Secretary shall permit the holder or holders of mining claims identified on the records of the Bureau of Land Management as Volco #A CAMC 105446, Volco #B CAMC 105447, Volco 1 CAMC 80155, Volco 2 CAMC 80156, Volco 3 CAMC 170259, Volco 4 CAMC 170260, Volco 5 CAMC 78405, Volco 6 CAMC 78404, and Volco 7 CAMC 78403, Volco Placer 78332, to continue exploration and development activities on such claims for a period of two years after the date of enactment of this title, subject to the same regulations as applied to such activities on such claims on the day before such date of enactment.

(2) At the end of the period specified in paragraph (1), or sooner if so requested by the holder or holders of the claims specified in such paragraph, the Secretary shall determine whether there has been a discovery of valuable minerals on such claims and whether, if such discovery had been made on or before July 1, 1994, such claims would have been valid as of such date under the mining laws of the United States in effect on such date.

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(3) If the Secretary, pursuant to paragraph (2), makes an affirmative determination concerning the claims specified in paragraph (1), the holder or holders of such claims shall be permitted to continue to operate such claims subject only to such regulations as applied on July 1, 1994 to the exercise of valid existing rights on patented mining claims within a unit of the National Park System.

SEC. 510. GRAZING.

(a) The privilege of grazing domestic livestock on lands within the preserve shall continue to be exercised at no more than the current level, subject to applicable laws and National Park Service regulations.

(b) If a person holding a grazing permit referred to in subsection (a) informs the Secretary that such permittee is willing to convey to the United States any base property with respect to which such permit was issued and to which such permittee holds title, the Secretary shall make the acquisition of such base property a priority as compared with the acquisition of other lands within the preserve, provided agreement can be reached concerning the terms and conditions of such acquisition. Any such base property which is located outside the preserve and acquired as a priority pursuant to this section shall be managed by the Federal agency responsible for the majority of the adjacent lands in accordance with the laws applicable to such adjacent lands.

SEC. 511. UTILITY RIGHTS OF WAY.

(a)(1) Nothing in this title shall have the effect of terminating any validly issued right-of-way or customary operation, maintenance, repair, and replacement activities in such right-of-way, issued, granted, or permitted to Southern California Edison Company, its successors or assigns, which is located on lands included in the Mojave National Preserve, but outside lands designated as wilderness under section 601(a)(3). Such activities shall be conducted in a manner which will minimize the impact on preserve resources.

(2) Nothing in this title shall have the effect of prohibiting the upgrading of an existing electrical transmission line for the purpose of increasing the capacity of such transmission line in the Southern California Edison Company validly issued Eldorado-Lugo Transmission Line right-of-way and Mojave-Lugo Transmission Line right-of-way, or in a right-of-way if issued, granted, or permitted by the Secretary adjacent to the existing Mojave-Lugo Transmission Line right-of-way (hereafter in this section referred to as “adjacent right-of-way”), including construction of a replacement transmission line: *Provided, That—*

(A) in the Eldorado-Lugo Transmission Line rights-of-way (hereafter in this section referred to as the “Eldorado rights-of-way”) at no time shall there be more than three electrical transmission lines;

(B) in the Mojave-Lugo Transmission Line right-of-way (hereafter in this section referred to as the “Mojave right-of-way”) and adjacent right-of-way, removal of the existing electrical transmission line and reclamation of the site shall be completed no later than three years after the date on which construction of the upgraded transmission line begins, after which time there may be only one electrical transmission line

in the lands encompassed by Mojave right-of-way and adjacent right-of-way;

(C) if there are no more than two electrical transmission lines in the Eldorado rights-of-way, two electrical transmission lines in the lands encompassed by the Mojave right-of-way and adjacent right-of-way may be allowed;

(D) in the Eldorado rights-of-way and Mojave right-of-way no additional land shall be issued, granted, or permitted for such upgrade unless an addition would reduce the impacts to preserve resources;

(E) no more than 350 feet of additional land shall be issued, granted, or permitted for an adjacent right-of-way to the south of the Mojave right-of-way unless a greater addition would reduce the impacts to preserve resources; and

(F) such upgrade activities, including helicopter aided construction, shall be conducted in a manner which will minimize the impact on preserve resources.

(3) The Secretary shall prepare within one hundred and eighty days after the date of enactment of this title, in consultation with the Southern California Edison Company, plans for emergency access by the Southern California Edison Company to its rights-of-way.

(b)(1) Nothing in this title shall have the effect of terminating any validly issued right-of-way, or customary operation, maintenance, repair, and replacement activities in such right-of-way; prohibiting the upgrading of and construction on existing facilities in such right-of-way for the purpose of increasing the capacity of the existing pipeline; or prohibiting the renewal of such right-of-way issued, granted, or permitted to the Southern California Gas Company, its successors or assigns, which is located on lands included in the Mojave National Preserve, but outside lands designated as wilderness under section 601(a)(3). Such activities shall be conducted in a manner which will minimize the impact on preserve resources.

(2) The Secretary shall prepare within one hundred and eighty days after the date of enactment of this title, in consultation with the Southern California Gas Company, plans for emergency access by the Southern California Gas Company to its rights-of-way.

(c) Nothing in this title shall have the effect of terminating any validly issued right-of-way or customary operation, maintenance, repair, and replacement activities of existing facilities issued, granted, or permitted for communications cables or lines, which are located on lands included in the Mojave National Preserve, but outside lands designated as wilderness under section 601(a)(3). Such activities shall be conducted in a manner which will minimize the impact on preserve resources.

(d) Nothing in this title shall have the effect of terminating any validly issued right-of-way or customary operation, maintenance, repair, and replacement activities of existing facilities issued, granted, or permitted to Molybdenum Corporation of America; Molycorp, Incorporated; or Union Oil Company of California (d/b/a Unocal Corporation); or its successors or assigns, or prohibiting renewal of such right-of-way, which is located on lands included in the Mojave National Preserve, but outside lands designated as wilderness under section 601(a)(3). Such activities shall be conducted in a manner which will minimize the impact on preserve resources.

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SEC. 512. PREPARATION OF MANAGEMENT PLAN.

Within three years after the date of enactment of this title, the Secretary shall submit to the Committee on Energy and Natural Resources of the United States Senate and the Committee on Natural Resources of the United States House of Representatives a detailed and comprehensive management plan for the preserve. Such plan shall place emphasis on historical and cultural sites and ecological and wilderness values within the boundaries of the preserve. Such plan shall evaluate the feasibility of using the Kelso Depot and existing railroad corridor to provide public access to and a facility for special interpretive, educational, and scientific programs within the preserve. Such plan shall specifically address the needs of individuals with disabilities in the design of services, programs, accommodations and facilities consistent with section 504 of the Rehabilitation Act of 1973, Public Law 101-336, the Americans with Disabilities Act of 1990 (42 U.S.C. 12101), and other appropriate laws and regulations.

SEC. 513. GRANITE MOUNTAINS NATURAL RESERVE.

(a) **ESTABLISHMENT.**—There is hereby designated the Granite Mountains Natural Reserve within the preserve comprising approximately nine thousand acres as generally depicted on a map entitled “Mojave National Park Boundary and Wilderness—Proposed 6”, dated May 1991.

(b) **COOPERATIVE MANAGEMENT AGREEMENT.**—Upon enactment of this title, the Secretary shall enter into a cooperative management agreement with the University of California for the purposes of managing the lands within the Granite Mountains Natural Reserve. Such cooperative agreement shall ensure continuation of arid lands research and educational activities of the University of California, consistent with the provisions of this title and laws generally applicable to units of the National Park System.

SEC. 514. SODA SPRINGS DESERT STUDY CENTER.

Upon enactment of this title, the Secretary shall enter into a cooperative management agreement with California State University for the purposes of managing facilities at the Soda Springs Desert Study Center. Such cooperative agreement shall ensure continuation of the desert research and educational activities of California State University, consistent with the provisions of this title and laws generally applicable to units of the National Park System.

SEC. 515. CONSTRUCTION OF VISITOR CENTER.

The Secretary is authorized to construct a visitor center in the preserve for the purpose of providing information through appropriate displays, printed material, and other interpretive programs, about the resources of the preserve.

SEC. 516. ACQUISITION OF LANDS.

The Secretary is authorized to acquire all lands and interest in lands within the boundary of the preserve by donation, purchase, or exchange, except that—

(1) any lands or interests therein within the boundary of the preserve which are owned by the State of California, or any political subdivision thereof, may be acquired only by donation or exchange except for lands managed by the California State Lands Commission; and

(2) lands or interests therein within the boundary of the preserve which are not owned by the State of California or any political subdivision thereof may be acquired only with the consent of the owner thereof unless the Secretary determines, after written notice to the owner and after opportunity for comment, that the property is being developed, or proposed to be developed, in a manner which is detrimental to the integrity of the preserve or which is otherwise incompatible with the purposes of this title: *Provided, however,* That the construction, modification, repair, improvement, or replacement of a single-family residence shall not be determined to be detrimental to the integrity of the preserve or incompatible with the purposes of this title.

SEC. 517. ACQUIRED LANDS TO BE MADE PART OF MOJAVE NATIONAL PRESERVE.

Any lands acquired by the Secretary under this title shall become part of the Mojave National Preserve.

SEC. 518. MOJAVE NATIONAL PRESERVE ADVISORY COMMISSION.

(a) The Secretary shall establish an Advisory Commission of no more than fifteen members, to advise the Secretary concerning the development and implementation of a new or revised comprehensive management plan for the Mojave National Preserve.

(b)(1) The advisory commission shall include an elected official for each County within which any part of the preserve is located, a representative of the owners of private properties located within or immediately adjacent to the preserve, and other members representing persons actively engaged in grazing and range management, mineral exploration and development, and persons with expertise in relevant fields, including geology, biology, ecology, law enforcement, and the protection and management of National Park resources and values.

(2) Vacancies in the advisory commission shall be filled by the Secretary so as to maintain the full diversity of views required to be represented on the advisory commission.

(c) The Federal Advisory Committee Act shall apply to the procedures and activities of the advisory commission.

(d) The advisory commission shall cease to exist ten years after the date of its establishment.

SEC. 519. NO ADVERSE AFFECT ON LAND UNTIL ACQUIRED.

Unless and until acquired by the United States, no lands within the boundaries of wilderness areas or National Park System units designated or enlarged by this Act that are owned by any person or entity other than the United States shall be subject to any of the rules or regulations applicable solely to the Federal lands within such boundaries and may be used to the extent allowed by applicable law. Neither the location of such lands within such boundaries nor the possible acquisition of such lands by the United States shall constitute a bar to the otherwise lawful issuance of any Federal license or permit other than a license or permit related to activities governed by 16 U.S.C. 4601–22(c). Nothing in this section shall be construed as affecting the applicability of any provision of the Mining in the Parks Act (16 U.S.C. 1901 et seq.), the Clean Air Act (42 U.S.C. 7401 et seq.), or regulations applicable to oil and gas development as set forth in 36 CFR 9B.

Mojave National Preserve Wilderness established by the California Desert Protection Act of October 31, 1994 (P.L. 103-433, 108 Stat. 4471)

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**TITLE VI—NATIONAL PARK SYSTEM
WILDERNESS**

SEC. 601. DESIGNATION OF WILDERNESS.

(a) In furtherance of the purposes of the Wilderness Act (78 Stat. 890; 16 U.S.C. 1311 et seq.), the following lands within the units of the National Park System designated by this Act are hereby designated as wilderness, and therefore, as components of the National Wilderness Preservation System:

(1) Death Valley National Park Wilderness, comprising approximately three million one hundred fifty-eight thousand thirty-eight acres, as generally depicted on twenty-three maps entitled “Death Valley National Park Boundary and Wilderness”, numbered in the title one through twenty-three, and dated October 1993 or prior, and three maps entitled “Death Valley National Park Wilderness”, numbered in the title one through three, and dated July 1993 or prior, and which shall be known as the Death Valley Wilderness.

(2) Joshua Tree National Park Wilderness Additions, comprising approximately one hundred thirty-one thousand seven hundred and eighty acres, as generally depicted on four maps entitled “Joshua Tree National Park Boundary and Wilderness—Proposed”, numbered in the title one through four, and dated October 1991 or prior, and which are hereby incorporated in, and which shall be deemed to be a part of the Joshua Tree Wilderness as designated by Public Law 94-567.

(3) Mojave National Preserve Wilderness, comprising approximately six hundred ninety-five thousand two hundred acres, as generally depicted on ten maps entitled “Mojave National Park Boundary and Wilderness—Proposed”, and numbered in the title one through ten, and dated March 1994 or prior, and seven maps entitled “Mojave National Park Wilderness—Proposed”, numbered in the title one through seven, and dated March 1994 or prior, and which shall be known as the Mojave Wilderness.

(b) **POTENTIAL WILDERNESS.**—Upon cessation of all uses prohibited by the Wilderness Act and publication by the Secretary in the Federal Register of notice of such cessation, potential wilderness, comprising approximately six thousand eight hundred and forty acres, as described in “1988 Death Valley National Monument Draft General Management Plan Draft Environmental Impact Statement” (hereafter in this title referred to as “Draft Plan”) and as generally depicted on map in the Draft Plan entitled “Wilderness Plan Death Valley National Monument”, dated January 1988, and which shall be deemed to be a part of the Death Valley Wilderness as designated in paragraph (a)(1). Lands identified in the Draft Plan as potential wilderness shall be managed by the Secretary insofar as practicable as wilderness until such time as said lands are designated as wilderness.

SEC. 602. FILING OF MAPS AND DESCRIPTIONS.

Maps and a legal description of the boundaries of the areas designated in section 601 of this title shall be on file and available for public inspection in the appropriate offices of the National Park Service, Department of the Interior. As soon as practicable after the date of enactment of this title, maps and legal descriptions

of the wilderness areas shall be filed with the Committee on Energy and Natural Resources of the United States Senate and the Committee on Natural Resources of the United States House of Representatives, and such maps and legal descriptions shall have the same force and effect as if included in this title, except that the Secretary may correct clerical and typographical errors in such maps and legal descriptions.

SEC. 603. ADMINISTRATION OF WILDERNESS AREAS.

The areas designated by section 601 of this title as wilderness shall be administered by the Secretary in accordance with the applicable provisions of the Wilderness Act governing areas designated by that title as wilderness, except that any reference in such provision to the effective date of the Wilderness Act shall be deemed to be a reference to the effective date of this title, and where appropriate, and reference to the Secretary of Agriculture shall be deemed to be a reference to the Secretary of the Interior.

Other Acts

*ACQUISITION AUTHORITY

Act of October 31, 1994, authorized acquisition by donation, purchase or exchange. Privately owned lands may be acquired only with the consent of the owner unless the owner's use or proposed use of the land is deemed incompatible with the purposes of the preserve. Construction or modification of a single-family residence shall not be considered incompatible with purposes of the preserve. Lands or interests owned by the State of California, or any political subdivision thereof, may be acquired only by donation or exchange, except for lands managed by the California State Lands Commission. The act authorized the transfer to the National Park Service (NPS), without consideration, of described lands under the jurisdiction of the Bureau of Land Management (BLM). The act provides that if a person holding a grazing permit is willing to convey to the United States any base property with respect to which such permit was issued, the Secretary shall make the acquisition of such base property a priority.

Act of October 27, 2000 (P.L. 106-362, 114 Stat. 1404), provided for (1) the conveyance to Clark County, Nevada, of certain Federal lands in the Ivanpah Valley, Nevada, for the development of an airport facility. As consideration for the conveyance of each parcel, the County shall pay to the United States an amount equal to the fair market value of the parcel. Such payments received are to be deposited into a certain special account and expended only for the acquisition of private inholdings in the Mojave National Preserve and for the protection and management of the petroglyph resources in Clark County, Nevada.

Act of September 30, 2003 (P.L. 108-87, 117 Stat. 1100), authorized the Secretary to convey to the Veterans Home of Barstow, California, the one-acre tract containing a white cross designated as a national memorial by P.L. 107-117 in exchange for a five-acre tract owned by Mr. and Mrs. Henry Sandoz. Upon completion of the exchange, the boundary of the national preserve shall be revised to include the five-acre Sandoz tract.

***BOUNDARY REVISIONS**

Act of September 30, 2003, authorized the Secretary to convey a one-acre tract containing a white cross designated as a national memorial by P.L. 107-117 in exchange for a five-acre tract owned by Mr. and Mrs. Henry Sandoz. Upon completion of the exchange, the boundary of the national preserve shall be revised to include the five-acre Sandoz tract.

ACREAGE LIMITATIONS

None

STATUTORY CEILING FOR LAND ACQUISITION

Act of October 31, 1994, authorized appropriations for land acquisition by NPS and BLM not to exceed a total of \$300,000,000.

REMARKS

Act of October 31, 1994, requires that:

- (1) Until acquired by the United States, no non-Federal lands within the park boundary shall be subject to rules or regulations applicable solely to Federal lands within such boundary.
- (2) None of the lands within the park boundary shall be granted to or otherwise made available for use by the Metropolitan Water District pursuant to the Boulder Canyon Project Act or any similar acts.
- (3) Upon request of the California State Lands Commission, the Secretary shall negotiate to acquire by exchange State school lands within the boundaries of the park system units designated by the act. Until all such State school lands have been acquired, no Federal lands or interests within the State of California may be disposed of prior to providing the State an opportunity to enter into an exchange of those Federal lands for State School lands.
- (4) Lands and interests in land to be acquired pursuant to this act shall be appraised without regard to the presence of a threatened or endangered species.

*Denotes section revised January 9, 2004

Appendix B: Analysis of Fundamental Resources and Values

Fundamental Resource or Value	Full range of biological diversity of native species representative of the eastern Mojave Desert ecosystem, minimally disturbed by humans
Importance of FRV	<ul style="list-style-type: none"> Achieves mission of the NPS Organic Act and California Desert Protection Act of 1994 (i.e., the law references “diverse ecosystems” and “undisturbed ecosystems”). By inference, indicates connectivity to the larger ecoregion and indicates the health of the overall ecological system that is supported by native plant and animal communities; springs, seeps, and ephemeral streams; as well as other natural features and processes. Measurable and observable (verifiable using vegetation transects, etc.).
Relationship to Significance Statements	Related to significance statements 1, 2, and 3.
Condition, Trends, Threats, and Opportunities Related to FRV	<p>Conditions</p> <ul style="list-style-type: none"> The condition of the biological diversity ranges from nearly pristine to moderately degraded. No waters in Mojave National Preserve are considered impaired by the state of California under the Clean Water Act. In other words, all waters within the preserve are attaining their state designated beneficial uses. <p>Trends</p> <ul style="list-style-type: none"> The range of biological diversity appears to be improving in areas primarily due to the decrease of grazing pressure from burros and cattle. Water availability at seeps and springs is highly correlated with precipitation. Lack of maintenance of developed water sources is generally reducing water availability. Small riparian areas are developing around water sources after cattle removal. <p>Threats</p> <ul style="list-style-type: none"> Climate change and its effects have increased the severity and frequency of drought events. Temperature has shown a statistically significance increase during the 20th century (0.5°C, 1901–2002) and is projected to increase 2.7°C–4.1°C by 2100. Precipitation models project both increases and decreases in the 21st century. A continued decrease of rain could lead to loss of vegetation and to dust mobilization, resulting in degraded air quality. Changing disturbance regimes, such as increased fire frequency and intensity, lead to a loss of perennials and an increase of grass species. Invasive species of flora and fauna, as well as native species, are exceeding their historic populations due to human factors (e.g., historical cattle grazing, garbage, and modifications of the landscape). Habitat fragmentation and edge effects from through-roads, renewable energy developments, and power lines have adverse effects on the biodiversity (e.g., blocked sheep movement, birds injured in flight, tortoise translocation) and cause direct habitat loss outside the preserve boundaries.

Fundamental Resource or Value	Full range of biological diversity of native species representative of the eastern Mojave Desert ecosystem, minimally disturbed by humans
<p>Condition, Trends, Threats, and Opportunities Related to FRV (continued)</p>	<p>Threats (continued)</p> <ul style="list-style-type: none"> • Visitor use has a slow, incremental adverse impact on the Mojave ecosystems. Impacts include soil disturbance, trash and human waste at backcountry campsites, soil erosion, road widening and increasing dust clouds from vehicle traffic, disrupted wildlife behavior, and new vehicle bypasses related to road damage. Also, trash left by visitors increases the potential presence of ravens, which are known to feed on juvenile tortoises. • Resource extraction degrades and fragments vegetation communities and wildlife habitat, such as through legal and illegal collection, continued livestock grazing, and near-boundary mineral extraction, groundwater contamination, and dust from mine sites blowing into the preserve. • The federally endangered Mohave tui chub, the only native fish in the Mojave river system, is under continual threat due to its isolated populations, limited aquatic habitat, and effects from competing nonnative fish. • Spatial analyses of climate requirements and future climate projections indicate that desert tortoise (<i>Gopherus agassizii</i>) and Joshua tree (<i>Yucca brevifolia</i>) are vulnerable to future range shifts and range contractions in southern California Mojave Desert ecosystems. • Urban encroachment and energy development around the perimeter of the preserve and beyond can alter surface and subsurface hydrology (and may have water rights implications), which can alter springs, seeps, ephemeral streams, and other sensitive aquatic habitat. • Groundwater pumping for renewable energy facilities and projects like that at Cadiz threatens sustainability of water resources. <p>Opportunities</p> <ul style="list-style-type: none"> • Interagency efforts exist to protect biological diversity, such as the Desert Managers Group, Western Regional Partnership, and the Desert Landscape Conservation Cooperative through the Bureau of Reclamation, etc. • Renewable energy mitigation projects—Mojave exists as a source of potential mitigation for renewable energy developers who can purchase private in-holdings located in tortoise habitat and donate the land to the National Park Service to increase the amount of protected tortoise habitat. • Expanding collaborative agency/academic research with the Ivanpah Desert Tortoise Research Facility. • Advanced interpretation of the eastern Mojave Desert Ecosystem and how this ecosystem is influenced by changes in climate. • There is a great opportunity to identify relationships between wildlife populations and ephemeral water sources. • Work through the Desert Managers Group to develop interagency methods for preventing depletion of groundwater supplies.

Fundamental Resource or Value	Full range of biological diversity of native species representative of the eastern Mojave Desert ecosystem, minimally disturbed by humans
Existing information (e.g., data, plans) about the FRV that provides knowledge base for planning and management	<ul style="list-style-type: none"> • Inventory and Monitoring (I&M) Program—inventory of biotic and abiotic resources as well as on-the-ground monitoring. • Spring inventory and annual spring survey data. • Database on drilled wells and provisioned water. • Data on mule deer population movements. • Katherine Thomas’ vegetation map and plot data. • Map of surficial geology and associated data. • Tui chub population and genetic data. • Species lists of wildlife using specific water sources. • Peer-reviewed work out of the Desert Studies Center and Sweeney Granite Mountains Desert Research Center. • Research done by the U.S. Geological Survey (USGS), especially regarding landscape scale changes and perennial vegetation. • Water resources management plan (in process). • Climate change trends and vulnerabilities summary.
Planning and Data Needs to Protect and Maintain FRV	<ul style="list-style-type: none"> • Resource stewardship strategy—needed to define desired future resources conditions, management actions needed to achieve desired conditions, and implementation. • Inventory and monitoring program—continued leadership, “cheerleading,” support, and report on I&M information that has been documented. • Monitoring of external threat impacts, especially from renewable energy projects. • Sharing of resource data across agencies. • Coordination of management actions/decisions across boundaries (higher level than Desert Managers Group). • Invasive species management. • Water resources management plan¾water rights and water uses assessment, including an assessment of potential threats to preserve water rights and resources. (In process. See to completion.) • Climate change scenario planning.

Fundamental Resource or Value	Full range of biological diversity of native species representative of the eastern Mojave Desert ecosystem, minimally disturbed by humans
Laws and Policies that Apply to the FRV	<ul style="list-style-type: none"> • California Desert Protection Act of 1994 • California Water Code • Case law regarding federal reserved water rights • Clean Water Act of 1972, as amended • Endangered Species Act of 1973 • Executive Order 13112, "Invasive Species" • Federal Noxious Weed Act of 1974, as amended • National Invasive Species Act of 1996 • NPS <i>Management Policies 2006</i> <ul style="list-style-type: none"> • Section 4.1.5 requires the National Park Service to reestablish natural functions and processes in parks unless otherwise directed by Congress. • Section 4.4.2.4 states that natural landscapes disturbed by natural phenomena, such as landslides, earthquakes, floods, hurricanes, tornadoes, and fires, will be allowed to recover naturally unless manipulation is necessary for specified reasons. • Section 4.4.1 requires the National Park Service to maintain, as parts of the natural ecosystems of parks, all plants and animals native to park ecosystems • Section 4.4.2 states that whenever possible, natural processes will be relied upon to maintain native plant and animal species and influence natural fluctuations in populations of these species. The National Park Service may intervene to manage individuals or populations of native species only when such intervention will not cause unacceptable impacts to the populations of the species or to other components and processes of the ecosystems that support them. • Section 4.7.2 states that park units containing significant natural resources will gather and maintain baseline climatological data for reference. • Wilderness Act of 1964 • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"

Fundamental Resource or Value	Full range of biological diversity of native species representative of the eastern Mojave Desert ecosystem, minimally disturbed by humans
NPS Policy-level Guidance	<ul style="list-style-type: none"> • The National Park Service maintains all native plants and animals as parts of the park’s natural ecosystems. • Natural abundances, diversities, dynamics, distributions, habitats, and behaviors of native plant and animal populations are preserved and restored. • Populations of native plant and animal species function in as natural condition as possible except where special considerations are warranted. • Native species populations that have been severely reduced in or extirpated from the park are restored where feasible and sustainable. • Potential threats to the park’s native plants and wildlife are identified early and proactively addressed through inventory and monitoring. • Sources of air, water, and noise pollution, as well as visitor uses adversely affecting plants and animals, are limited to the greatest degree possible. • Visitors and staff recognize and understand the value of the park’s native plants and wildlife. • NPS staff uses the best available scientific information and technology to manage these resources. • Federal-and state-listed threatened and endangered species and their habitats are protected and sustained. Preserve staff works to minimize the introduction of nonnative species and provides for their control and removal to minimize the economic, ecological, and human health impacts that these species cause. • The National Park Service is to reexamine its approaches to park management and consider what climate change means for its responsibilities to determine desired natural, cultural, and experiential conditions and address the inevitable movement, loss, or gain of species associated with parks. Although “natural conditions” may be difficult to characterize and ineffective as a guide for desired conditions, traditional practices targeted to maintain “natural conditions” in parks (e.g., removing invasive species and other stressors, maintaining natural processes, supporting biodiversity and landscape connectivity, and continuing to build and support system resilience) remain viable management strategies consistent with the NPS need to adapt to climate change.

Fundamental Resource or Value	Exposed geologic features and landforms, including sand dunes, cinder cones, mesas, and dry lakes
Importance of FRV	<ul style="list-style-type: none"> • The preserve contains a high diversity of unique geologic features and types that can be easily viewed. • Cinder Cones Natural Area is a national natural landmark within the preserve boundaries.
Relationship to Significance Statements	Related to significance statement 2.

Fundamental Resource or Value	Exposed geologic features and landforms, including sand dunes, cinder cones, mesas, and dry lakes
<p>Condition, Trends, Threats, and Opportunities Related to FRV</p>	<p>Conditions</p> <ul style="list-style-type: none"> • The geologic features are in stable condition. • In order to assist with management decisions, the preserve has geology expertise on staff. • During the BLM administration of this land, the natural shapes and surfaces of some cinder cones were modified by mining operations that excavated roads for exploration purposes and removed large quantities of cinders for sale. Land form scars in the form of road cuts, prospect sites, and abandoned equipment remain. • Mitchell Caverns State Park, an important geologic resource, is within the boundary of the preserve. • The Kelso Dunes are now protected from consumptive use and disturbance because they are closed to off-road vehicles (since 1973), mining exploration has ceased, and mining claims no longer exist in this area. <p>Trends</p> <ul style="list-style-type: none"> • The preserve has eliminated vehicle impacts on the Kelso Dunes by enforcement of wilderness regulations. • Reclamation of geological disturbances from past commercial mining has occurred and the preserve will continue this effort to improve surface geological conditions, while remaining sensitive to significant cultural resources related to the mines and wildlife habitat they may provide. <p>Threats</p> <ul style="list-style-type: none"> • Patented and unpatented mining claims could be activated if the right conditions fell into place, leading to potential negative impacts on geological resources. • Invasive Sahara mustard (<i>Brassica tournefortii</i>) is a threat to the Kelso Dunes; this herb has had particularly adverse effects in the Devils Playground area. • The tire tracks from visitors driving off designated roads and onto the Soda Lake dry lake bed often remain for long periods. • Currently, only limited climbing pressure exists. • Mitchell Caverns State Park has been closed. Since the closure, it has been vandalized, and a caretaker has been engaged. <p>Opportunities</p> <ul style="list-style-type: none"> • Develop more interpretation, interpretive trails, and recreation opportunities. • Develop an accessible trail at Soda Lake. • The Cima Dome and Teutonia Peak areas lack visitor facilities needed for hikes in these areas, such as a vault toilet. • Geology field trips to the Aiken Mine, or to an abandoned cinder mine that exposes a cross section of a cinder cone (sliced down the middle).
<p>Existing information (e.g., data, plans) about the FRV that provides knowledge base for planning and management</p>	<ul style="list-style-type: none"> • Mineral validity exams, previously submitted plans of operation, or other mineral-related documents provide information on the likelihood of patented and unpatented claims being reopened by determining the potential economic viability of the claim. • GIS data—two geologic maps: bedrock geology map and surface geology map. • The U.S. Geological Survey has plenty of data; using stratigraphy of Soda Lake and Soda Springs to reconstruct the paleoclimate. • The USGS website provides a virtual 3D and photographic tour of Mojave National Preserve, featuring preserve geology. • Several studies on how sand of the Kelso Dunes produce a booming sound when sliding down slopes (also called “booming dunes”).

Fundamental Resource or Value	Exposed geologic features and landforms, including sand dunes, cinder cones, mesas, and dry lakes
Planning and Data Needs to Protect and Maintain FRV	<ul style="list-style-type: none"> • Need data for impacts on driving on Soda Lake and/or a management plan for the Soda Lake area. • Study the spread and control of Sahara mustard. • Lava flows—identify when each occurred (lower priority). • Update PMIS statement for Cinder Cone interpretive trail. • Need study on relationship between surficial geology and biological soil crust, and the effects of human disturbance. This is important for siting facilities and minimizing impact to desert pavement. • Paleoclimatic proxy records (e.g., lake sediments, spring deposits). • Visitor use impacts on dunes.
Laws and Policies that Apply to the FRV	<ul style="list-style-type: none"> • 36 CFR 2.1—prohibits possessing, destroying, disturbing mineral resources in park units. • 36 CFR 5.14—prospecting, mining, and mineral leasing • 36 CFR Part 9A—mining and mining claims • Mining in the National Parks Act of 1976 • <i>NPS Management Policies 2006</i> <ul style="list-style-type: none"> • Section 4.1 requires the National Park Service to manage natural resources to maintain all components and processes of naturally evolving park resources. • Section 4.8 requires the National Park Service to preserve and protect geologic resources as integral components of park natural systems. • Section 4.8.2 requires the National Park Service to protect geologic features from the unacceptable impacts of human activity while allowing natural processes to continue. • Section 4.8.2.4 requires the National Park Service to actively seek to understand and preserve the soil resources of parks, and to prevent, to the extent possible, the unnatural erosion, physical removal, or contamination of the soil or its contamination of other resources. • Section 8.7 states that mineral exploration or development may be allowed in parks only when prospective operators demonstrate that they hold rights to valid mining claims, federal mineral leases, or nonfederally owned minerals.
NPS Policy-level Guidance	<ul style="list-style-type: none"> • Mojave National Preserve’s geologic resources are preserved and protected as integral components of its natural systems. • The National Park Service actively seeks to understand and preserve the soil resources of Mojave National Preserve, and to prevent, to the extent possible, the unnatural erosion, physical removal, or contamination of the soil, or the soil’s contamination of other resources. • Natural soil resources and processes function in as natural a condition as possible, except where special considerations are allowable under policy. • Surficial geology is mapped for priority areas and critical habitats. • NPS minerals management regulations and policies will be applied to all mining proposals and operations.

Fundamental Resource or Value	Desert scenery (encompassing geology, landscape, vegetation, big sky, wildlife, etc.)
Importance of FRV	<ul style="list-style-type: none"> • People make an emotional connection to Mojave National Preserve through its scenery. • The preserve has a diversity of scenic values and qualities that contribute to a sense of discovery. • The preserve’s enabling legislation specifically references “scenic values” and “geologic values.”
Relationship to Significance Statements	<p>Related to significance statements 1, 2, 3, and 4.</p>

Fundamental Resource or Value	Desert scenery (encompassing geology, landscape, vegetation, big sky, wildlife, etc.)
Condition, Trends, Threats, and Opportunities Related to FRV	<p>Conditions</p> <ul style="list-style-type: none"> • There are ample opportunities to view scenery including: <ul style="list-style-type: none"> • physical resources (geology). • cultural resources related to mining, ranching, and railroads. • natural resources (wildflower and plant communities, including Mojave yucca, Joshua tree forest). <p>Trends</p> <ul style="list-style-type: none"> • Expanding urban development and energy/mineral development outside of the preserve threatens the visual quality of the landscapes located on the outer edges of the preserve boundary. • The noise and air quality (dust) impact trend is increasing. • Invasive plants, such as Sahara mustard, expand over sandy landscapes changing the visual character of the ground surfaces. • Climate change and fire are expected to continue to impact the plant communities' visual character. <p>Threats</p> <ul style="list-style-type: none"> • Fire is a threat to vegetation and cultural resources. The Hackberry Fire in 2005 burned more than 70,000 acres of pinyon pine, juniper, and other vegetation. • Temperature has shown a statistically significant increase during the 20th century (0.5°C, 1901–2002) and is projected to increase 2.7°C–4.1°C by 2100. Precipitation models project both increases and decreases in the 21st century. Spatial analyses of climate requirements and future climate projections indicate the Joshua tree (<i>Yucca brevifolia</i>) is vulnerable to future range shifts and range contractions in southern California Mojave Desert ecosystems. • Vehicles driving onto wilderness areas of the Soda Lake bed leave visual scars that often remain until the next significant rain event, which can be several months. • Pollution and dust disturbance adversely impact the air quality and reduce visibility and scenery viewing. • Incompatible land uses and development within and outside of the preserve produce visual intrusions on the landscape. • Exotic plants and other threats to plants, such as fungus, adversely impact native vegetation, detracting from the natural desert scenery. • Remnants of nonhistoric abandoned mines that are not considered to be culturally significant create negative impacts upon the visual experience of visitors. <p>Opportunities</p> <ul style="list-style-type: none"> • Climate change interpretation is possible through observations in visual changes in the landscape. • There is a need for new hiking trails to be constructed and accessed along well-traveled highways to provide visitors with opportunities to park, exit their vehicle, and view the landscape at a slower pace. • Wildlife viewing areas could be identified for visitor use.
Existing information (e.g., data, plans) about the FRV that provides knowledge base for planning and management	<ul style="list-style-type: none"> • Viewsheds have been evaluated in airport plans (Ivanpah airport). • There has been some documentation of historic photos for Zzyzx and other areas detailing what the landscape looked like previously and how it has changed over time. • Personnel at the University of California Natural Reserve System are conducting a regional plant inventory of the Granite Mountains of the East Mojave Desert that includes the collection and deposit of more than 5,000 specimens in the reserve herbarium. Selected research is being conducted and a plant database is being maintained. • Fire management plan (2004). • Climate change trends and vulnerabilities summary.

Fundamental Resource or Value	Desert scenery (encompassing geology, landscape, vegetation, big sky, wildlife, etc.)
Planning and Data Needs to Protect and Maintain FRV	<ul style="list-style-type: none"> • Air-quality monitoring is needed, especially because several areas have been cleared of vegetation (may be an external effort). • Updated fire management plan.
Laws and Policies that Apply to the FRV	<ul style="list-style-type: none"> • <i>NPS Management Policies 2006</i> <ul style="list-style-type: none"> • Sections 1.4, 1.6, and 3.1 call for the National Park Service to conserve and protect scenery and scenic vistas. • Sections 4.1.5 and 4.4.2.4 direct the National Park Service to restore human-disturbed areas.
NPS Policy-level Guidance	<ul style="list-style-type: none"> • The scenic views at Mojave National Preserve continue to stir imaginations, inspire, and provide opportunities for visitors to understand, appreciate, and forge personal connections to the area. • Intrinsically important scenic vistas and scenic features are not significantly diminished by development.

Fundamental Resource or Value	Living laboratory that provides unique opportunities for education and research of abundant cultural resources and a minimally disturbed desert ecosystem
Importance of FRV	<ul style="list-style-type: none"> • The minimally disturbed ecosystem in the preserve provides many educational and research opportunities for institutions, field schools, school trips, etc. • The preserve’s enabling legislation specifies that the preserve shall “retain and enhance opportunity for research.” • Two research institutions are specifically mentioned in the legislation, the Sweeney Granite Mountains Desert Research Center and the Desert Studies Center. • Mojave National Preserve exemplifies high genetic diversity of desert tortoise due to the presence of three distinct populations overlaying on a landscape with gentle elevation gradient. This provides research opportunities to recover threatened species in a changing environment. • The relatively few invasive plant species and the many special status plant species found at the preserve make the preserve an important area for plant research. Of the preserve’s 913 recorded species of plants only 69 are invasive (a low percentage when compared to other California ecosystems), and “113 plants are listed by California and two private organizations as rare or special status species.” • Studying the environmental changes could lead to a better understanding of ecological adaption to attributes such as fire, climate change, and grazing. • Researching the extensive collection of cultural resources in the preserve (both documented and yet to be discovered) provide insight into past inhabitation and use.
Relationship to Significance Statements	Related to significance statements 1, 3, 5, and 6.

Fundamental Resource or Value	Living laboratory that provides unique opportunities for education and research of abundant cultural resources and a minimally disturbed desert ecosystem
Condition, Trends, Threats, and Opportunities Related to FRV	<p>Condition</p> <ul style="list-style-type: none"> • The preserve is accessible and accommodating for researchers. The preserve provides research permits and there are two facility locations within the preserve to accommodate overnight stays for researchers. • A tremendous amount of active research is occurring within the preserve, including archaeology, biology, geology and hydrology, and meteorology and atmospheric science. • Most often, research on specific resources is undertaken when a hot button issue is related to such resources. <p>Trends</p> <ul style="list-style-type: none"> • The amount of research in the preserve continues to grow through coordination efforts of the preserve's science advisor. <p>Threats</p> <ul style="list-style-type: none"> • Loss of funding and reduced budgets for research. • Less research is conducted during times of drought when plants and animals are not present or are less active. • Deterioration of cultural resources due to both natural and human causes. • Spatial analyses of climate requirements and future climate projections indicate that desert tortoise (<i>Gopherus agassizii</i>) and Joshua tree (<i>Yucca brevifolia</i>) are vulnerable to future range shifts and range contractions in southern California Mojave Desert ecosystems. <p>Opportunities</p> <ul style="list-style-type: none"> • Mojave National Preserve is at the juncture of three clusters of distinct desert tortoise genetic groups, allowing for unique opportunities for research related to desert tortoise groups. • Opportunities exist to conduct research related to desert tortoises and climate change. Research could study the ability of the desert tortoise to migrate from the low elevation bajadas to the higher elevation and cooler Cima Dome in a changing climate.
Existing information (e.g., data, plans) about the FRV that provides knowledge base for planning and management	<ul style="list-style-type: none"> • The preserve has a database of research activities and products. • Bibliography at Granite Mountains, Desert Studies Library. • Sweeney Granite Mountain Desert Research Center maintains a plant database: Andre, James M. <i>Inventory of Vascular Plants at Mojave National Preserve & Manzanar Historic Site, 2006.</i> • Inventory and monitoring data sets. Baseline data exists, but analysis of data needs to be done to answer questions. Monitoring will continue to consider potential trends. Questions need to be clearly defined to gather the most important information. • Historic mining and ranching studies exist, providing substantial background for interpretation, education, and research. • The Kelso Depot has been well documented. • Known petroglyphs and pictographs have mostly been recorded. • Ranching inventory and history (Livingston study). • National register district nomination for the historic Rock Springs Land & Cattle Company, represented by the Kessler Springs and OX Ranches. • Climate change trends and vulnerabilities summary.

Fundamental Resource or Value	Living laboratory that provides unique opportunities for education and research of abundant cultural resources and a minimally disturbed desert ecosystem
Planning and Data Needs to Protect and Maintain FRV	<ul style="list-style-type: none"> • Data on Kelso schools. • Oral histories. • Update the existing long-range interpretive plan. • Transportation—historic study of routes across the desert. • The preserve hosts a juncture of three distinct population segments of the desert tortoise in an area of gently sloping but substantial elevation change. Thus the preserve presents a unique opportunity to study the effects of climate change and upwardly migrating vegetation ecotones on desert tortoise genetic diversity.
Laws and Policies that Apply to the FRV	<ul style="list-style-type: none"> • Director’s Order 6: Interpretation and Education • NPS <i>Management Policies 2006</i> <ul style="list-style-type: none"> • Section 2.3.1.4 requires decisions documented in general management plans and other planning projects to be based on current scientific and scholarly understanding of park ecosystems and cultural contexts and the socioeconomic environment both internal and external to the park. The collection and analysis of information about park resources will be a continuous process that will help ensure that decisions are consistent with park purposes. • Section 4.2 encourages natural resource studies that are consistent with applicable laws and policies to further our understanding of park resources. • Section 5.1 directs the park to conduct research into cultural resources to collect an information base to ensure appropriate protection and to support planning and management. • Section 6.3.6 states that the statutory purposes of wilderness include scientific activities, and these activities are encouraged and permitted when consistent with National Park Service responsibilities to preserve and manage wilderness. • Section 7.1 requires every park to develop an interpretive and educational program that includes curriculum-based educational programs that link park themes to national standards and state curricula and involve educators in planning and development.
NPS Policy-level Guidance	<ul style="list-style-type: none"> • Current scientific research and scholarly understanding of park ecosystems and cultural contexts as well as the socioeconomic environment both internal and external to the park should be used to support management decision making. The collection and analysis of information about park resources will be a continuous process that will help ensure that decisions are consistent with park purposes. • Interpretive and educational services/programs at the park facilitate intellectual and emotional connections between visitors and park resources, foster understanding of park resources and resource stewardship, and build a local and national constituency. Outreach programs through schools, organizations, and partnerships build connections to the park. Curriculum and place-based education inspire student understanding and resource stewardship. Visitors receive adequate information to orient themselves to the park and opportunities for a safe and enjoyable visit. Pre-trip information is available for visitors to plan a rewarding trip.

Fundamental Resource or Value	Natural soundscapes and dark night skies
Importance of FRV	<ul style="list-style-type: none"> • Both natural soundscapes and dark night skies contribute to the value of solitude, are desired experiences, are threatened by external factors such as urban areas and encroaching developments, and are also threatened by inholdings, permitted activities, and preserve operations. There are NPS initiatives/programs related to both.

Fundamental Resource or Value	Natural soundscapes and dark night skies
Relationship to Significance Statements	<ul style="list-style-type: none"> • Related to significance statement 4.
Condition, Trends, Threats, and Opportunities Related to FRV	<p>Condition</p> <ul style="list-style-type: none"> • Conditions in the interior of the preserve are very good, but areas closer to the freeways are impacted by light and sound associated with vehicles, urban development, and energy and mining development. <p>Trends</p> <ul style="list-style-type: none"> • Increased use of Interstates 15 and 40 transportation corridors (vehicle lights). • Increasing noise and lighting from developments along the preserve boundaries (such as alternative energy projects, bullet train, airport, urban encroachment, and economic opportunities). For example, the threat to the quality of night sky darkness is growing as neighboring cities such as Las Vegas, Nevada; Bullhead City, Arizona; and Baker, California, continue to grow and cast additional light into the night sky. • Increases in permitted activities, such as large group touring and camping, filming, and rights-of-way. <p>Threats</p> <ul style="list-style-type: none"> • The increased use of transportation corridors and development (urban, energy, mineral) adds both noise and light pollution, adversely affecting the natural soundscapes and dark night skies. • Overflights, especially for low-level military operations. <p>Opportunities</p> <ul style="list-style-type: none"> • Preserve operations can lead by example through efforts to protect soundscapes and night skies. The preserve could assess and adjust operations to increase use of electric vehicles and generator shielding and could take measures to reduce outdoor lighting effects. • Interpretive programs regarding dark night skies (star parties).
Existing information (e.g., data, plans) about the FRV that provides knowledge base for planning and management	<ul style="list-style-type: none"> • Baseline data on sound levels in preserve. • Outdoor lighting assessment of administrative buildings within the preserve. • General management plan (2002). • Long-range interpretive plan (interpretive theme) (2004). • Fleet management plan.
Planning and Data Needs to Protect and Maintain FRV	<ul style="list-style-type: none"> • Compile existing soundscape data, complete analysis, and/or redo soundscape study. • Procure report from existing night sky lighting assessment (WASO) and possibly expand its scope. • Incorporate best management practices for lighting and sound in future preserve plans. • Apply lighting and sound best management practices to existing preserve facilities. • Study effects of wind turbines on soundscape. • Work with external municipalities and developments on sound and lighting best management practices (e.g., downlighting ordinances, etc.).

Fundamental Resource or Value	Natural soundscapes and dark night skies
<p>Laws and Policies that Apply to the FRV</p>	<ul style="list-style-type: none"> • Director’s Order 47: <i>Sound Preservation and Noise Management</i> • Final Rule: 14 CFR 136 – regulations implementing the national parks air management • National Parks Air Tour Management Act of 2000 • National Parks Overflight Act of 1987 (Public Law 100-91) • Recent legislation related to decisions made with regard to the proposed new Las Vegas airport development has banned commercial overflights over Mojave airspace • NPS regulations (36 CFR 2.12) further identify audio disturbances that are prohibited in park units • Clean Air Act of 1977 • NPS <i>Management Policies 2006</i> <ul style="list-style-type: none"> • Section 4.9 requires the National Park Service to preserve, to the greatest extent possible, the natural soundscapes of parks and restore to the natural condition wherever possible those park soundscapes that have become degraded by unnatural sounds (noise), and protect natural soundscapes from unacceptable impacts. • Section 4.10 recognizes that the night sky of parks plays a role in natural resource processes and the evolution of species, as well as being a feature that contributes to the visitor experience. The policy further states that NPS staff will seek to minimize the intrusion of artificial light into the night scene. In natural areas, artificial outdoor lighting will be limited to meeting basic safety requirements and will be shielded when possible.
<p>NPS Policy-level Guidance</p>	<ul style="list-style-type: none"> • Natural darkness and other components of the natural lightscape in Mojave National Preserve are protected. • The National Park Service will seek the cooperation of park visitors, neighbors, and local government agencies to prevent or minimize the intrusion of artificial light into the night scene within Mojave National Preserve. • Mojave National Preserve’s inventory of natural resources identifies ecological processes or components that uniquely depend on or are affected by nighttime light. • Artificial light sources in developed areas are designed to prevent light pollution. • Throughout a majority of Mojave National Preserve visitors have opportunities to experience dark night skies free of light pollution. • The National Park Service preserves the natural ambient soundscapes, restores degraded soundscapes to the natural ambient condition wherever possible, and protects natural soundscapes from unacceptable impacts. • Noise from management or recreational uses is minimized to provide a high-quality visitor experience and protect biological resources and processes that involve natural sounds (for example species that use sound to attract mates, protect territories, locate prey, navigate, or avoid predators). • Park and concession facilities use best available technology and methods to minimize or mitigate artificial noises produced by equipment and management activities. • Visitors have opportunities to experience and understand natural soundscapes. • The park maintains a baseline inventory of natural sounds levels that needs to be analyzed and, as feasible, future sound equipment could be placed in these same locations to monitor any changes in noise levels. • Ecological interactions that depend on or are affected by sound are protected.

Fundamental Resource or Value	Vast expanse of undeveloped open space, including (but not limited to) wilderness
Importance of FRV	<ul style="list-style-type: none"> Part of the Mojave Wilderness (designated in the California Desert Protection Act of 1994), contributes to solitude, provides a refuge from urban areas and nearby developments, contributes to scenic viewshed.
Relationship to Significance Statements	Related to significance statements 1 and 2.
Condition, Trends, Threats, and Opportunities Related to FRV	<p>Condition</p> <ul style="list-style-type: none"> Four percent of the Mojave National Preserve is privately owned. Many of these private parcels exist in areas where roads are present, creating situations where future private development and private use could change the landscape. Historic mining and other structures are scattered across the landscape and are also a part of the viewshed. Cattle grazing operations still exist within the preserve boundary. Many historic abandoned mines and related structures exist within the preserve. These mines are a part of the cultural landscape and attract many visitors to explore the back country roads of the preserve. <p>Trends</p> <ul style="list-style-type: none"> Increasing development along preserve boundaries, such as the Molycorp Mountain Pass Mine expansion project, alternative energy development, bullet train, and the airport. <p>Threats</p> <ul style="list-style-type: none"> Development along preserve boundaries detracts from the vastness of the landscape. The National Park Service is in the process of planning and constructing a primary maintenance facility and employee housing in the preserve necessary for preserve operations. While necessary, the presence of these structures will add more of a developed quality to the land. Cattle grazing operations within the preserve boundary will continue to alter the experiences and appearance of the otherwise undeveloped expanse. Temperature has shown a statistically significant increase during the 20th century (0.5°C, 1901–2002) and is projected to increase 2.7°C–4.1°C by 2100. Precipitation models project both increases and decreases in the 21st century. These changes could impact plant and animal communities and viewsheds that comprise the undeveloped open space. <p>Opportunities</p> <ul style="list-style-type: none"> Clean-up operations of acquired lands have been completed and continue to take place. Some disturbed land restoration projects have been undertaken and others could be identified and prioritized to begin securing suitable funding. Advanced interpretation of the eastern Mojave Desert ecosystem and how this ecosystem is influenced by changes in climate.

Fundamental Resource or Value	Vast expanse of undeveloped open space, including (but not limited to) wilderness
<p>Existing information (e.g., data, plans) about the FRV that provides knowledge base for planning and management</p>	<ul style="list-style-type: none"> • Housing needs assessment and plan. • General management plan. • Grazing management plan (draft). • Fleet management plan. • Government Performance and Results Act strategic plan. • Programmatic agreement with the state historic preservation office (SHPO) re: abandoned mine lands safety installations. • Servicewide abandoned mine lands inventory and assessment report (in process by the NPS Geologic Resources Division). • Water resources management plan (in process). • Trails management plan (draft). • Roadside camping plan (in process). • Climate change trends and vulnerabilities summary.
<p>Planning and Data Needs to Protect and Maintain FRV</p>	<ul style="list-style-type: none"> • Wilderness management plan or backcountry management plan. • Completed grazing management plan. • Update to land protection plan. • Water resources management plan (in process). • Trails management plan. • Roadside camping plan. • Condition assessments and treatment plans for historic structures. • Rock art management plan (may be done by preserve staff). • Continue updates to the Archeological Sites Management Information System (ASMIS) database on archeological site condition and stabilization needs. • Resource stewardship strategy for cultural and natural resources.
<p>Laws and Policies that Apply to the FRV</p>	<ul style="list-style-type: none"> • Wilderness Act of 1964 • Endangered Species Act of 1973 • Desert Tortoise (Mojave Population) Recovery Plan and Critical Habitat • NPS <i>Management Policies 2006</i> <ul style="list-style-type: none"> • Sections 4.1.5 and 4.4.2.4 direct the National Park Service to restore human-disturbed areas (subject to applicable Wilderness management laws and policies). • California Desert Protection Act of 1994

Fundamental Resource or Value	Vast expanse of undeveloped open space, including (but not limited to) wilderness
<p>NPS Policy-level Guidance</p>	<ul style="list-style-type: none"> • The National Park Service manages wilderness areas, including those proposed for wilderness designation, “for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness” (16 USC 1131 Section 2(a)). • The National Park Service ensures that the land’s “primeval character and influence” is retained and protected, that visitors continue to find “outstanding opportunities for solitude or a primitive and unconfined type of recreation,” and that the landscape “generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable” (16 USC 1131 Section 2(c)). • The Wilderness Act of 1964 specifies that “each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area and shall so administer such area for such other purposes for which it may have been established as also to preserve its wilderness character” (16 USC 1131 Section 4(b)). • The Wilderness Act of 1964 specifies that the designation of any area of the national park system as wilderness “shall in no manner lower the standards evolved for the use and preservation of such park, monument, or other unit of the national park system” under the various laws applicable to that unit (16 USC 1133 Section 4(a)(3)). • Cultural resources that have been included within wilderness will be protected and maintained according to the pertinent laws and policies governing cultural resources using management methods that are consistent with the preservation of wilderness character and values. • Natural processes, native components, and the interrelationships among them are protected, maintained, and/or restored to the extent possible, while providing opportunities for their enjoyment as wilderness. • Present and future visitors enjoy the unique qualities offered in wilderness. These include the experiences of solitude, remoteness, risk, challenge, self-sufficiency, discovery, and observation of an untrammelled ecosystem. • Wilderness management is based on the minimum requirement concept, allowing only those actions necessary and appropriate for administration of the area as wilderness and that do not cause a significant impact to wilderness resources and character. Implementation of such actions is done using techniques and types of equipment necessary to ensure that impacts on wilderness resources and character are minimized. • The values of the wilderness in Mojave National Preserve are understood by the public and staff through education in wilderness ethics, use, and using management skills and techniques to promote and preserve these values. • Operations and wilderness functions are coordinated in Mojave National Preserve to manage and protect natural and cultural resources in wilderness and preserve wilderness character. • The primary qualities that define wilderness character (untrammelled, undeveloped, naturalness, solitude or primitive and unconfined recreation, and other) are monitored and are protected and managed as required.

Fundamental Resource or Value	Sense of discovery
<p>Importance of FRV</p>	<ul style="list-style-type: none"> • Desired visitor experience derived from the enabling legislation implies access to and hands-on exploration of the desert and promotes direct encounters and first-hand experiences.
<p>Relationship to Significance Statements</p>	<p>Related to significance statements 1, 2, and 4,</p>

Fundamental Resource or Value	Sense of discovery
<p>Condition, Trends, Threats, and Opportunities Related to FRV</p>	<p>Condition</p> <ul style="list-style-type: none"> • More than 1,000 miles of open dirt roads exist within the preserve for visitors to explore with their private vehicles. Paved roads offer fewer opportunities for sense of discovery. • The preserve has hundreds of roadside campsites. • The established trail system in the preserve has minimal signage. • Public lands outside of the preserve follow different missions and allow for different uses not compatible with NPS and preserve lands (e.g., the allowance for the use of off-highway vehicles [OHVs]). <p>Trends</p> <ul style="list-style-type: none"> • The majority of visitors to the preserve remain hesitant to leave established routes and travel cross-country on foot. • Threats • An enlargement and merging of popular roadside campsites detracts from the unhindered sense of discovery. • The maintenance responsibility for paved and primary dirt roads will be transferred to NPS staff in 2013 without adequate funding support. This situation will adversely affect visitors’ ability to safely access many preserve visitor facilities and natural and cultural resources by passenger vehicle. <p>Opportunities</p> <ul style="list-style-type: none"> • More than 1,000 miles of open dirt roads exist within the preserve for visitors to explore with their private vehicles. • The preserve maintains an established trail system, but opportunities also exist for visitors to hike cross country (e.g., off-trail). • Preserve interpretive materials and messages promote a “sense of discovery.”
<p>Existing information (e.g., data, plans) about the FRV that provides knowledge base for planning and management</p>	<ul style="list-style-type: none"> • General management plan • Long-range interpretive plan. • Government Performance and Results Act strategic plan. • Trails management plan (draft). • Roadside camping plan (in process).
<p>Planning and Data Needs to Protect and Maintain FRV</p>	<ul style="list-style-type: none"> • Wilderness management plan or backcountry management plan. • Site development plan. • Trails management plan (draft). • Roadside camping plan (in process). • Address Mojave Road use, gather data (subset of backcountry management plan). • Address roadside camping use, gather data (subset of backcountry management plan). • Roads management plan (in process at the Pacific West Region). • Address geocaching/earthcaching use; gather data. • Management zoning/site development plan (for whole preserve). • Visitor capacity study.

Fundamental Resource or Value	Sense of discovery
Laws and Policies that Apply to the FRV	<ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> <ul style="list-style-type: none"> • Section 1.9.3 requires all practicable efforts to be made with NPS facilities, programs, services, employment, and meaningful work opportunities in order for them to be accessible and usable by all people, including those with disabilities. • Wilderness Act of 1964 • <i>National Park Service Transportation Planning Guidebook</i> • Americans with Disabilities Act of 1990 (28 CFR 36) • Architectural Barriers Act of 1968 • Architectural Barriers Act Accessibility Standards 2006 • Rehabilitation Act of 1973 • Director's Order 42: <i>Accessibility for Visitors with Disabilities in National Park Service Programs and Services</i> • Secretary of the Interior's regulation 43 CFR 17, <i>Enforcement of Nondiscrimination on the Basis of Handicap in Programs or Activities Conducted by the Department of the Interior</i>
NPS Policy-level Guidance	<ul style="list-style-type: none"> • Visitors have opportunities for forms of enjoyment that are uniquely suited and appropriate to the superlative natural and cultural resources found in Mojave National Preserve. All areas of the park, with the exceptions of areas with life estates and areas that need special resource protection, continue to be open to visitors. • Visitors have reasonable access to Mojave National Preserve. Transportation facilities inside and outside the park (e.g. roads, parking areas, trails, and shuttles) provide access for the use and enjoyment of park resources while also ensuring protection of those resources. Transportation facilities preserve the integrity of the surroundings, respect ecological processes, and provide the highest visual quality and a rewarding visitor experience. • To the extent feasible, park programs, services, and facilities are accessible to and usable by all people, including those with disabilities.

Fundamental Resource or Value	Exemplary relics, sites, stories, and other resources associated with ancient inhabitants and Mojave and Chemehuevi tribal cultures
Importance of FRV	<ul style="list-style-type: none"> • Identified in enabling legislation.
Relationship to Significance Statements	Related to significance statements 5 and 6.

Fundamental Resource or Value	Exemplary relics, sites, stories, and other resources associated with ancient inhabitants and Mojave and Chemehuevi tribal cultures
Condition, Trends, Threats, and Opportunities Related to FRV	<p>Condition</p> <ul style="list-style-type: none"> • The complete set of condition assessments can be found in the Archeological Sites Management Information System. In general, the condition of the resources are good (i.e., stable). • Trends • According to ASMIS data, the resources are stable, and in most cases, will probably remain so for quite some time. <p>Threats</p> <ul style="list-style-type: none"> • Looting and vandalism (e.g., graffiti and shooting), and unauthorized OHV use contribute to the degradation of the resources. • Continued grazing and feral burros can degrade cultural resources, particularly those in proximity to water sources. • Climate change, including changes in precipitation patterns (intensity/frequency), fire frequency, and temperature that can impact cultural sites. <p>Opportunities</p> <ul style="list-style-type: none"> • Public interpretation of petroglyphs and pictographs could be expanded based on the development of a petroglyph and pictograph management plan that relies on sound resource conservation principles. • The preserve could expand opportunities for tribal consultation and cooperative efforts to interpret tribal lifeways for the public.
Existing information (e.g., data, plans) about the FRV that provides knowledge base for planning and management	<ul style="list-style-type: none"> • Archeological overview and research design. • Ethnohistorical overview. • ASMIS database.
Planning and Data Needs to Protect and Maintain FRV	<ul style="list-style-type: none"> • Petroglyphs and pictographs management plan. • Archeological surveys of large areas of the preserve (in progress, but slow process). • Collections management plan. • Curation housekeeping plan. • Collection Storage Plan. • Archival survey and curation plan. • Planning to locate and acquire collections from Mojave held in outside curation facilities to consolidate holdings deriving from Mojave National Preserve. • National Register of Historic Places nominations (or Determination of Eligibility) of petroglyph sites.

Fundamental Resource or Value	Exemplary relics, sites, stories, and other resources associated with ancient inhabitants and Mojave and Chemehuevi tribal cultures
Laws and Policies that Apply to the FRV	<ul style="list-style-type: none"> • National Historic Preservation Act of 1966, as amended (16 USC 470) • Advisory Council on Historic Preservation’s implementing regulations regarding the “Protection of Historic Properties” (36 CFR 800) • Curation of Federally Owned and Administered Archeological Collections (36 CFR 79) • Archeological and Historic Preservation Act of 1974 • Archaeological Resources Protection Act of 1979 • American Indian Religious Freedom Act of 1978 • Director’s Order 28: <i>Cultural Resource Management</i> • Director’s Order 28A: <i>Archeology</i> (2004) • <i>NPS Management Policies 2006</i> <ul style="list-style-type: none"> • Section 5.3.5.1 states that archeological resources will be managed in situ, unless the removal of artifacts or physical disturbance is justified by research, consultation, preservation, protection, or interpretive requirements. • Section 5.3.5.3 requires the National Park Service to be respectful of ethnographic resources and carefully consider the effects the NPS actions may have on them. When religious issues are evident, the National Park Service must also consider constraints imposed on federal agency actions by the First and Fourteenth Amendments to the U.S. Constitution. • Executive Order 11593, “Protection and Enhancement of the Cultural Environment” (1971) • Executive Order 13007, “Indian Sacred Sites” (1996) • Native American Graves Protection and Repatriation Act of 1990 • Programmatic agreement among the National Park Service, Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers (2008) • Presidential Memorandum on Government-to-Government Relations with Native American Tribal Governments • <i>Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation</i>

Fundamental Resource or Value	Exemplary relics, sites, stories, and other resources associated with ancient inhabitants and Mojave and Chemehuevi tribal cultures
NPS Policy-level Guidance	<ul style="list-style-type: none"> • Archeological sites are identified and inventoried, and their significance is determined and documented. Archeological sites are protected in an undisturbed condition unless it is determined through formal processes that disturbance or natural deterioration is unavoidable. • When disturbance or deterioration is unavoidable, the site is professionally documented and excavated, and the resulting artifacts, materials, and records are curated and conserved in consultation with the California state historic preservation office and traditionally associated American Indian tribes, including the Mojave and Chemehuevi in particular. • Some archeological sites that can be adequately protected may be interpreted to the visitor. • Appropriate cultural anthropological research is conducted in consultation with groups traditionally associated with Mojave National Preserve. • To the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, the National Park Service accommodates access to and ceremonial use of American Indian sacred sites by American Indian religious practitioners and avoids adversely affecting the physical integrity of these sacred sites. • All executive agencies are required to consult, to the greatest extent practicable and to the extent permitted by law, with tribal governments before taking actions that potentially affect federally recognized tribal governments. American Indians and other individuals and groups linked by ties of kinship or culture to ethnically identifiable human remains, sacred objects, objects of cultural patrimony, and associated funerary objects are consulted when such items may be disturbed or are encountered on park lands. • All ethnographic resources determined eligible for listing or listed in the National Register of Historic Places are protected. If disturbance of such resources is unavoidable, formal consultation with the California State Historic Preservation Officer and the Advisory Council on Historic Preservation, and with Native American tribes as appropriate, is conducted. • The identities of community consultants and information about sacred and other culturally sensitive places and practices are kept confidential according to protocols established in consultation with the affected tribal governments. • Potentially sensitive natural and cultural resources and traditional cultural properties (ethnographic resources eligible for the National Register of Historic Places) are identified, recorded, and evaluated through consultation with affected tribes. The integrity of traditional cultural properties is preserved and protected. • Government-to-government consultation is conducted and maintained with each of the tribes traditionally associated with the lands that now comprise Mojave National Preserve.

Fundamental Resource or Value	Exemplary relics, sites, stories, and other resources associated with the historic uses of the eastern Mojave Desert (including mining, ranching, homesteading, and railroad history)
Importance of FRV	<ul style="list-style-type: none"> • Identified in enabling legislation.
Relationship to Significance Statements	Related to significance statements 5 and 6.

Fundamental Resource or Value	Exemplary relics, sites, stories, and other resources associated with the historic uses of the eastern Mojave Desert (including mining, ranching, homesteading, and railroad history)
<p>Condition, Trends, Threats, and Opportunities Related to FRV</p>	<p>Condition</p> <ul style="list-style-type: none"> • Resources related to ranching are in fair shape. • Resources related to mining are in poor to fair condition. • Resources related to the railroad are generally neglected. <p>Trends</p> <ul style="list-style-type: none"> • The condition of the ranching resources is improving. • The condition of select mining resources are improving as a result of both historic preservation efforts and mining hazard mitigation treatments. • Railroad resources are generally not improving in condition. <p>Threats</p> <ul style="list-style-type: none"> • Vandalism, theft, looting, and graffiti are widespread and increasing in frequency. • Natural elements such as erosion, vegetation, heat and wind, and wildfire pose threats to cultural resources. • Societal attitude that desert resources, sites, and values are of little worth. • Climate change, including changes in precipitation patterns (intensity/frequency), fire frequency, and temperature, which can impact cultural sites. <p>Opportunities</p> <ul style="list-style-type: none"> • The preserve interprets the ranching, mining, and railroad resources for visitors. Additional opportunities for expansion or enhancement exist. • Coordinate historic preservation of the resources with the Visitor and Resource Protection Division. • A group of mines in the Standard Mining District has been identified as being ideal for a driving tour to show the history of mining (which can be done when ongoing mining hazard mitigation treatments are completed). • Possible volunteer program that aims to restore and maintain backcountry cabins and structures. • Currently seeking recreation fee funds for development of interpretation at ranches and Kelso Schoolhouse. • Development of a program for overnight visitor use of backcountry cabins. • With proper education and by telling the story of the historical use of the desert, it may be possible to overcome the common social attitude about the desert being of little or no worth.
<p>Existing information (e.g., data, plans) about the FRV that provides knowledge base for planning and management</p>	<ul style="list-style-type: none"> • Rock Springs Land & Cattle Company Historic District national register nomination, condition assessment and treatment plan, inventory and assessment. • Standard District recordation, Ivanpah record, Providence, California, and treatment plan, Vulcan Mine cultural landscape inventory. • Facility Management Software System condition assessments. • Zzyzx cultural landscape inventory. • Ongoing abandoned mine lands inventory and assessment project. • Mojave National Preserve list of classified structures. • Chappell, et al. "Historic Structure Report-Kelso Depot: An Oasis for Railroaders in the Mojave." • Local Historian Dennis Casebier has been gathering archival materials pertaining to the Mojave Desert since 1954.

Fundamental Resource or Value	Exemplary relics, sites, stories, and other resources associated with the historic uses of the eastern Mojave Desert (including mining, ranching, homesteading, and railroad history)
<p>Planning and Data Needs to Protect and Maintain FRV</p>	<ul style="list-style-type: none"> • Mining historic preservation plan. • Additional recordation of railroad features as archeological sites. • Condition assessments and treatment plans. • Monitoring and protection plans. • Prioritization of historic preservation needs across cultural categories. • Determinations of eligibility of historic structures and cultural landscapes for listing in the National Register of Historic Places to be used in planning and compliance for stabilization and rehabilitation projects and as an end in itself. • Print/publish <i>Railroads of the Mojave Desert - A History of Railroad in and around Mojave National Preserve</i> by Gordon Chappell. • Site plan for Kelso cultural landscape. • Historic furnishing plan for Kelso School. • Transportation—historic study of routes across the desert.
<p>Laws and Policies that Apply to the FRV</p>	<ul style="list-style-type: none"> • National Historic Preservation Act of 1966, as amended (16 USC 470) • Advisory Council on Historic Preservation’s implementing regulations regarding the “Protection of Historic Properties” (36 CFR 800) • Archeological and Historic Preservation Act of 1974 • Director’s Order 28: <i>Cultural Resource Management</i> • NPS <i>Management Policies 2006</i> <ul style="list-style-type: none"> • Sections 4.1.5 and 4.4.2.4 direct the National Park Service to restore human-disturbed areas. • Section 5.3.5.2 calls for the preservation of the physical attributes, biotic systems, and uses of cultural landscapes that contribute to historical significance. • Section 5.3.5.2.6 states that all uses of cultural landscapes are subject to legal requirements, policy, guidelines, and standards for natural and cultural resource preservation, public safety, and special park uses. • Section 5.3.5.4 requires the treatment of historic and prehistoric structures to be based on sound preservation practice to enable the long-term preservation of a structure’s historic features, materials, and qualities. There are three types of treatment for extant structures: preservation, rehabilitation, and restoration. • Programmatic agreement among the National Park Service, Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers (2008) • <i>The Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation</i> • <i>The Secretary of the Interior’s Standards for the Treatment of Historic Properties</i>

Fundamental Resource or Value	Exemplary relics, sites, stories, and other resources associated with the historic uses of the eastern Mojave Desert (including mining, ranching, homesteading, and railroad history)
NPS Policy-level Guidance	<ul style="list-style-type: none"> • Historic structures are inventoried and their significance and integrity are evaluated under National Register of Historic Places criteria. • The qualities that contribute to the listing or eligibility for listing of historic structures in the national register are protected in accordance with the <i>Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i>, unless it is determined through a formal process that disturbance or natural deterioration is unavoidable. • Laws pertaining to historic preservation remain applicable within wilderness but must be generally administered to preserve the area's wilderness character. • The historic character of historic structures is managed in accordance with Section 5.3.5.4 of NPS <i>Management Policies 2006</i>. • Historic structure inventories and reports are prepared and existing reports are amended as needed. Actions identified in historic structure reports are implemented and a record of treatment is added to the reports. • Identified and evaluated historic structures are monitored, inspected, and managed to enable the long-term preservation of a resource's historic features, qualities, and materials. • Cultural landscape inventories are conducted to identify landscapes potentially eligible for listing in the national register and to assist in future management decisions for landscapes and associated resources, both cultural and natural. • The management of cultural landscapes focuses on preserving the landscape's physical attributes, biotic systems, viewshed, and use when that use contributes to its historical significance. • The preservation, rehabilitation, restoration, or reconstruction of cultural landscapes is undertaken in accordance with the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes</i>. • The cultural landscapes of Mojave National Preserve retain a high degree of integrity. • Identified and evaluated cultural landscapes are monitored, inspected, and managed to enable the long-term preservation of a resource's historic features, qualities, and materials. • Actions identified in cultural landscape reports are implemented and a record of treatment is added to the reports.

Fundamental Resource or Value	Exemplary sites and stories associated with early trade, exploration, and transportation routes such as the Mojave Road and the Old Spanish National Historic Trail
Importance of FRV	<ul style="list-style-type: none"> • Identified in enabling legislation.
Relationship to Significance Statements	Related to significance statements 5 and 6.

Fundamental Resource or Value	Exemplary sites and stories associated with early trade, exploration, and transportation routes such as the Mojave Road and the Old Spanish National Historic Trail
Condition, Trends, Threats, and Opportunities Related to FRV	<p>Condition</p> <ul style="list-style-type: none"> The cultural resources associated with western exploration and settlement are in fair to poor condition, particularly in some areas with excessive use. The Mojave Road has recently been nominated for listing in the National Register of Historic Places. The Mojave Road and the Old Spanish National Historic Trail follow nearly the same path through the preserve. <p>Trends</p> <ul style="list-style-type: none"> In general, these resources are degrading. The Old Spanish National Historic Trail physical remnants are faint and virtually invisible on the landscape at this time. Wagon ruts from the Mojave Road are still apparent within the preserve on its far eastern end. <p>Threats</p> <ul style="list-style-type: none"> High-speed driving has increased the ruts, wash-boarding, and swales in the roads, leading to more off-track use. Human waste and litter. The Mojave Road is suffering from a loss of historic character in terms of losing the historical experience of exploration due to increased visitor use and changing driving habits (e.g., off-road use habits). Overuse during some periods affects visitor experience. Damage to major Mojave Road sites—Marl Spring, Fort Piute, and Rock Spring—results from both high levels of visitor use and misuse. Shrines placed by the public alter the potential for a “historic” experience on the Mojave Road. The maintenance responsibility for paved and primary dirt roads will be transferred to NPS staff in 2013 without adequate funding support. This situation will adversely affect visitors’ ability to safely access many park visitor facilities and natural and cultural resources by passenger vehicle. <p>Opportunities:</p> <ul style="list-style-type: none"> Opportunities exist for a partnership that would help maintain and monitor road conditions. Many educational opportunities exist for interpreting the story of the Old Spanish Trail and Mojave Road to a wider audience than the current users of the route.
Existing information (e.g., data, plans) about the FRV that provides knowledge base for planning and management	<ul style="list-style-type: none"> The physical remains of the Mojave Road are recorded and have been nominated for listing in the National Register of Historic Places. The nomination to the National Register of Historic Places, along with a previous study of the Fort Piute area, provide ample historical background information. Historian Dennis Casebier has been gathering archival materials pertaining to the Mojave Desert since 1954. Several interpretive books regarding the Mojave Road authored by Casebier are available and serve as tour guides. The major sites along the Mojave Road are recorded.

Fundamental Resource or Value	Exemplary sites and stories associated with early trade, exploration, and transportation routes such as the Mojave Road and the Old Spanish National Historic Trail
Planning and Data Needs to Protect and Maintain FRV	<ul style="list-style-type: none"> • Mojave road management plan—both use of road and site management—to include monitoring and maintenance needs in terms of staffing, infrastructure, etc. • Condition assessments of all sites and the road itself. • Use studies—number, type, time and seasonality of use—should precede the preserve’s road management plan. • Completion of preserve roadside camping plan. • Study of the Lanfair homesteading period. • Collection/compilation of oral history information. • Transportation—historic study of routes across the desert.
Laws and Policies that Apply to the FRV	<ul style="list-style-type: none"> • National Historic Preservation Act of 1966, as amended (16 USC 470) • Advisory Council on Historic Preservation’s implementing regulations regarding the <i>Protection of Historic Properties</i> (36 CFR 800) • Archeological and Historic Preservation Act of 1974 • Director’s Order 28: <i>Cultural Resource Management</i> • <i>NPS Management Policies 2006</i> <ul style="list-style-type: none"> • Section 5.3.5.2 calls for the preservation of the physical attributes, biotic systems, and uses of cultural landscapes that contribute to historical significance. • Section 5.3.5.2.6 states that all uses of cultural landscapes are subject to legal requirements, policy, guidelines, and standards for natural and cultural resource preservation, public safety, and special park uses. • Section 5.3.5.4 requires the treatment of historic and prehistoric structures to be based on sound preservation practice to enable the long-term preservation of a structure’s historic features, materials, and qualities. There are three types of treatment for extant structures: preservation, rehabilitation, and restoration. • Programmatic agreement among the National Park Service, Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers (2008) • <i>The Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation</i> • <i>The Secretary of the Interior’s Standards for the Treatment of Historic Properties</i>

Fundamental Resource or Value	Exemplary sites and stories associated with early trade, exploration, and transportation routes such as the Mojave Road and the Old Spanish National Historic Trail
<p>NPS Policy-level Guidance</p>	<ul style="list-style-type: none"> • Historic structures are inventoried and their significance and integrity are evaluated under National Register of Historic Places criteria. • The qualities that contribute to the listing or eligibility for listing of historic structures on the national register are protected in accordance with the <i>Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i>, unless it is determined through a formal process that disturbance or natural deterioration is unavoidable. • Laws pertaining to historic preservation remain applicable within wilderness but must be generally administered to preserve the area's wilderness character. • The historic character of historic structures is managed in accordance with section 5.3.5.4 of <i>NPS Management Policies 2006</i>. • Historic structure inventories and reports are prepared and existing reports are amended as needed. Actions identified in historic structure reports are implemented and a record of treatment is added to the reports. • Identified and evaluated historic structures are monitored, inspected, and managed to enable the long-term preservation of a resource's historic features, qualities, and materials. • Cultural landscape inventories are conducted to identify landscapes potentially eligible for listing in the national register and to assist in future management decisions for landscapes and associated resources, both cultural and natural. • The management of cultural landscapes focuses on preserving the landscape's physical attributes, biotic systems, viewshed, and use when that use contributes to its historical significance. • The preservation, rehabilitation, restoration, or reconstruction of cultural landscapes is undertaken in accordance with the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes</i>. • Laws pertaining to historic preservation remain applicable within wilderness but must be generally administered to preserve the area's wilderness character. • The cultural landscapes of Mojave National Preserve retain a high degree of integrity. • Identified and evaluated cultural landscapes are monitored, inspected, and managed to enable the long-term preservation of a resource's historic features, qualities, and materials. • Actions identified in cultural landscape reports are implemented and a record of treatment is added to the reports.

Appendix C:

Inventory and Analysis of Special Mandates and Key Administrative Commitments

Special Mandates

1. **Allowance of Hunting, Fishing, and Trapping (October 31, 1994)**
The California Desert Protection Act states that hunting, fishing, and trapping on lands and waters within the preserve shall be permitted except in Secretary-designated areas and periods for reasons of public safety, administration, or compliance with provisions of applicable law (P.L. 103-443, sec. 506(b)).
2. **Land Withdrawal, Mining, and Validity (October 31, 1994)**
The provisions of the California Desert Protection Act provide guidance for land withdrawal, regulation of mining, and study as to the validity of mining claims. Any holders of valid claims shall be permitted to continue to operate such claims subject only to such regulations as applied on July 1, 1994, to the exercise of valid existing rights on patented mining claims within a unit of the national park system (P.L. 103-443, sec. 507, 508, and 509).
3. **Continuation of Existing Grazing Permits (October 31, 1994)**
The California Desert Protection Act states that the privilege of grazing domestic livestock on lands within the preserve shall continue to be exercised at not more than the 1994 level, and is subject to applicable laws and the NPS regulations (P.L. 103-443, sec. 510).
4. **Rights-of-way (October 31, 1994)**
Valid rights-of-way or customary operation, maintenance, repair, and replacement activities in such rights-of-way permitted to Southern California Edison Company, Southern California Gas Company, Molybdenum Corporation of America, Molycorp, Incorporated, and Union Oil Company of California shall continue and be conducted in a manner which will minimize the impact on preserve resources (P.L. 103-443, sec. 511).
5. **Research and Education Facilities (October 31, 1994)**
Sweeney Granite Mountains Desert Research Center is designated within the preserve and cooperatively managed with the University of California. The Desert Study Center is cooperatively managed with a consortium of the California State Universities located in southern California (P.L. 103-443, sec. 513 and 514).
6. **Private Lands (October 31, 1994)**
No lands within the boundaries of wilderness areas or national park system units that are owned by any private party shall be subject to any of the rules or regulations applicable solely to the federal lands within such boundaries (P.L. 103-443, sec. 519).
7. **Designation of Mojave National Preserve Wilderness (October 31, 1994)**
Section 601 of the California Desert Protection Act designated 695,200 acres of the preserve as wilderness area. The wilderness area is part of the national wilderness preservation system and is subject to the requirements of the Wilderness Act (P.L. 88-577). The National Park Service is required to manage the Mojave National Preserve Wilderness “for the use and enjoyment of the American people in such a manner as will leave them unimpaired for future use and enjoyment as wilderness” and to protect the area and its wilderness character (§2(a)).
8. **Native American Uses and Interests (October 31, 1994)**
The California Desert Protection Act ensures access to the preserve and wilderness areas by American Indians for traditional cultural and religious purposes (P.L. 103-443, sec. 705).
9. **Federal Reserved Water Rights (October 31, 1994)**
Congress reserves a quantity of water sufficient to fulfill the purposes of the California Desert Protection Act, with the priority date of the water rights to be the date of enactment of the California Desert Protection Act (P.L. 103-443, sec. 706).

10. Access to Private Property (October 31, 1994)

Access shall be provided to nonfederally owned land or interests in land within the boundaries of the preserve and wilderness areas which will provide the owner of such land or interest the reasonable use and enjoyment thereof (P.L. 103-443, sec. 708).

11. Military Overflights (October 31, 1994)

Low-level overflights of military aircraft over the preserve shall not be restricted or precluded by the California Desert Protection Act, the Wilderness Act, or other applicable land management laws (P.L. 103-443, sec. 802).

12. Grazing Allotment for Clark Mountain Allotment Lands (December 8, 2004, and August 2, 2005)

A special permit was issued for the portion of the Clark Mountain Allotment lands within the preserve. The special use permit was issued with the same terms and conditions as the most recently-issued permit for that allotment (P.L. 108-447, sec. 141, P.L. 109-54, sec. 125).



Administrative Commitments

Name	Agreement	Start Date	Expiration Date	Stakeholders	Purpose	Notes
Criminal Justice Information	MOU	11-19-07	11-11-15	Mojave National Preserve, Lake Mead National Recreation Area	To share criminal justice information between the park units.	Reaffirmed and extended November 12, 2010
Service First BLM FS NPS	MOU	6-19-07		Bureau of Land Management California Desert District, U. S. Forest Service San Bernardino National Forest, National Park Service Death Valley National Park, Mojave National Preserve, and Joshua Tree National Park	To affirm partner agency intent to establish service first initiatives at San Rosa San Jacinto Mountains National Monument, the Federal Interagency Communication Center, California Desert Interagency Fire and Aviation Program, and the California Desert Interagency Law Enforcement Program.	MOU BLM WO 830 2007 04 NFS 06 MU 11132218 083 NPS 1443 MU 2601001
Service First BLM NPS FS USFWS	MOU	11-24-06	9-3-08	National Park Service, Bureau of Land Management, United States Fish and Wildlife Service, U. S. Forest Service	To provide a framework for cooperation to improve efficiency and effectiveness.	MOU BLM WO 850 2006 05 NFS 06 MU 11132218 03 NPS 1443 MU 2601001 FWS 98210 6 N035
Baker Compound	Right of Way	8-21-95	None	Mojave National Preserve, Bureau of Land Management, State of California Department of Transportation	To transfer existing facilities and administrative use of the compound to Mojave National Preserve.	CALA 0109322 terminated , CACA 35723 Issued

Name	Agreement	Start Date	Expiration Date	Stakeholders	Purpose	Notes
Desert Managers Group	MOU	10-26-05	None	Bureau of Land Management, California/Nevada Fish and Wildlife Service, Regional Geological Survey, Pacific West Region National Park Service, Regional Bureau of Indian Affairs, Fort Irwin, China Lake Naval Weapons Station, Edwards Air Force Base, Twenty Nine Palms MAGTFC and MCAGCC, Barstow Marine Corps Logistic Base, Yuma Marine Corps Air Station, U. S. Forest Service Pacific Southwest Region, California Department of Parks and Recreation, Imperial County Board of Supervisors, Kern County Board of Supervisors, San Bernardino County Board of Supervisors	To participate in the Desert Managers Group.	
Desert Managers Group Coordinator Support	Inter-agency Agreement	8-16-07	8-16-12	California Bureau of Land Management, Mojave National Preserve, Joshua Tree National Park, Death Valley National Park	For the support of the DMG Coordinator's position.	Attachment to NPS Agreement F838007000
DMG Coordinator Office Lease	Interagency Acquisition Agreement			Mojave National Preserve, Department of the Army Fort Irwin and National Training Center	To provide office space.	IAA F8380080019

Name	Agreement	Start Date	Expiration Date	Stakeholders	Purpose	Notes
Friends Group	Fundraising Agreement	8-25-09	8-25-14	Pacific West Region, Mojave National Preserve, Mojave National Preserve Conservancy	To establish a basis for donation assistance and support for the benefit of Mojave National Preserve.	
SHPO Abandoned Mine Lands Agreement	Programmatic Agreement	8-18-09	9-30-15	NPS Pacific West Region, California State Historic Preservation Officer	Regarding mitigation of physical safety hazards at historic abandoned mineral lands.	
WNPA	Cooperating Association Agreement	3-8-05	5 years except auto-matic renew for an additional 5 years	National Park Service, Western National Parks Association	To provide facilities and cooperating services to the WNPA to allow them to provide support and assistance to the National Park Service.	
ZZYX Desert Studies Center Management	Cooperative Agreement	11-1-10	11-1-15	Mojave National Preserve, Trustees of the California State University	For cooperation in the management of education and research programs and facilities of the Desert Studies Center.	
California State Parks	Agreement	12-23-08	4-30-14	NPS Pacific West Region, California Department of Parks and Recreation	Regarding increased coordination and efficiencies.	

Name	Agreement	Start Date	Expiration Date	Stakeholders	Purpose	Notes
Desert Discovery Center	MOU			Barstow Community College, Mojave River Valley Museum, Barstow Unified School District, City of Barstow, Discovery Trails, Mojave National Preserve, Calico Ghost Town Regional Park, Barstow office of the Bureau of Land Management	Regarding increased coordination and efficiencies.	
Razor Fence Project	Project Agreement	10-16-09	10-31-12	Mojave National Preserve, California State Parks– OffHighway Motor Vehicle Recreation Division	To fund restoration activities including but not limited to installation of a boundary fence, signage, revegetation, monitoring and the purchase of an OHV.	BLM MOU CA680-0302
The Beanery	Concession contract				Provide food and beverage service for park visitors at Kelso Depot.	



Pacific West Region Foundation Document Recommendation Mojave National Preserve

June 2013

This Foundation Document has been prepared as a collaborative effort between park and regional staff and is recommended for approval by the Pacific West Regional Director.

Stephanie R. DeBois

RECOMMENDED

Superintendent, Mojave National Preserve

6-17-13

Date

For Patricia J. Neubauer

APPROVED

Regional Director, Pacific West Region

6/26/13

Date



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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